AU/AWC/RWP258/96-04

AIR WAR COLLEGE

AIR UNIVERSITY

UNDERSTANDING THE AIR FORCE CULTURE

by

Lynne E. Vermillion
Lt Col, USAF

A Research Report Submitted to the Faculty

In Partial Fulfillment of the Curriculum Requirement

Advisor: Colonel Gail Arnott

Maxwell Air Force Base, Alabama

1 April 1996

20010921 151

DISTRIBUTION A:

Approved for public release; distribution is unlimited.

Air War College
Maxwell AFB, Al 36112

Disclaimer

The views expressed in this academic research paper are those of the author(s) and do not reflect the official policy or position of the US government or the Department of Defense. In accordance with Air Force Instruction 51-303, it is not copyrighted, but is the property of the United States government.

Contents

Tables

AU/AWC/RWP258/96-04

Abstract

The Air Force has a rich, distinct culture that developed naturally from its historic origins, its unique view that technology in the third dimension could bring about a totally different manner of conducting war, and its emphasis on individual accomplishments. Most programs in the Air Force are consistent with this technology-based culture, but problems arise because of the failure to understand the various implications of this culture. An understanding of the Air Force's culture can explain many of its current beliefs and actions, and senior leaders should understand the role that culture plays in determining the eventual success of the organization. More importantly, an understanding of the Air Force's culture can enable senior leaders to know how to lead it into the future.

Chapter 1

Introduction

"Culture" is often referred to in military magazines and documents. An article in the Winter 1993-1994 issue of *Joint Forces Quarterly (JFQ)* was entitled "Jointness, Service Culture, and the Gulf War."[1] A year later, *JFQ* contained another article entitled "Service Identities and Joint Culture."[2] A June 1995 editorial in the *Marine Corps Gazette* was entitled "Preserving the Culture of the Corps."[3] While testifying to the House National Security Committee, the Secretary of the Air Force and the Air Force Chief of Staff stated they had "preserved and enhanced our Air Force culture."[4] Additionally, many Total Quality Management articles discuss the need to change organizational cultures.[5]

Although these articles refer to culture, they neither explain what is meant nor why it is important. The articles in the *JFQ* simply described the history, roles, and missions of the United States' four military services without any explicit explanation of cultural differences. Without knowing what constitutes an organization's culture, how is it possible to preserve, enhance, or change it?

The goal of this research paper is to provide a factual framework for understanding the Air Force's culture. Chapter II will begin by discussing theoretical concepts of organizational culture. This will provide a generalized explanation of what is meant by "culture," describe how it is manifested in an organization, discuss the origins of an

organization's culture, and finally explain why it is important to understand an organization's culture. Chapter III will then examine the environmental, historical, and mission factors that have shaped the Air Force culture. Chapter IV will show how the this culture is manifested in clear differences between the Air Force and the other services. Next, chapter V will highlight alleged problems with the Air Force's culture and examine some of the cultural reasons why these problems may have occurred. Finally, chapter VI will briefly discuss the implications of this culture for the future of the Air Force.

The Air Force has a very rich culture that is distinct from the other services. It is neither better nor worse, only different. By understanding the origins and the key elements of the Air Force's culture, one can recognize the valid reasons for these differences. This paper will not attempt to suggest changes or provide solutions to cultural "problems;" however, with an understanding of the Air Force's culture, one can discover where and why changes are necessary and also determine how changes can effectively be made. An understanding of the Air Force's culture is useful to everyone who interacts with the Air Force and is vitally important for all Air Force leaders. By the end of this paper, the reader should understand why it has been said that "the only thing of real importance that leaders do is to create and manage culture."[6]

Notes

[1] Bernard E. Trainor, "Jointness, Service Culture, and the Gulf War," *Joint Forces Quarterly* 3 (Winter 1993-94): 71.

[2] Paul G. Cerjan, "Service Identities and Joint Culture," *Joint Forces Quarterly* 6 (Autumn/Winter 1994-95): 36.

[3] Col John E. Greenwood, "Preserving the Culture of the Corps," *Marine Corps Gazette* 79, no. 6 (June 1995): 2.

[4] Dr Sheila Widnall and Gen Ronald R. Fogleman, "Air Force Posture," Testimony given to the House National Security Committee, 22 February 1995. Quoted in 1995 Air Force Issues Book

Notes

[5] For an example of articles that discuss the need to change organizational culture, see Joan B. Keston, "Dimensions of Excellence: Changing Organizational Culture," Ernest C. Huge and Gerald Vasily, "Leading Cultural Change: Developing Vision and Change Strategy," and Maj Michael R. Schlegel, "TQM and Continuous Process Improvement: Can We Make It Work?" in Elizabeth A. Bailey et al., eds., *Senior Leadership in the Quality Air Force,* 4th ed. (Maxwell AFB, Ala.: Air University, September 1993), 153-157, 199-203, 322-324.

[6] Edgar H. Shein, *Organizational Culture and Leadership: A Dynamic View* (San Francisco, Calif.: Jossey-Bass Publishers, 1985), 2.

Chapter 2

What Is Culture?

Defining Culture

To understand the Air Force's culture, it is first necessary to understand what "culture" is. The Merriam-Webster's Collegiate Dictionary defines culture as "the integrated pattern of human knowledge, belief, and behavior that depends upon man's capacity for learning and transmitting knowledge to succeeding generations" or "the set of shared attitudes, values, goals, and practices that characterizes a company or corporation."[1] Although this definition provides a starting point, it does not help one understand the Air Force's culture. A review of existing literature provides more insight.

Although there has been a great deal written about organizational culture, there are significant differences in how various authors perceive culture. Some consider the study of organizational culture to be a relatively new phenomenon while others insist it had its foundations in the work of anthropologists and sociologists. Furthermore, each theorist and researcher has his or her own definition of culture. Dr Edgar H. Shein, a clinical psychologist turned organizational theorist, defines culture as "a pattern of basic assumptions—invented, discovered or developed by a given group as it learns to cope with its problems of external adaptation and internal integration—that have worked well

4

enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems."[2] David Drennan offers a simpler definition in his book *Transforming Company Culture*. He states culture is "how things are done around here."[3] Two main themes emerge from a literature review: culture may be something an organization "has" or something an organization "is." It may refer to the observable behavior of an organization, or it can refer to the underlying beliefs of an organization. Both concepts are important, and Steven Ott stresses that "the first step to understanding the essence of organizational culture is to appreciate it is a concept rather than a thing."[4]

Regardless of the definition or approach, theorists agree that every organization has a culture. The underlying culture establishes what the organization considers to be important, the "who and how" philosophy of decision-making, the competitive or cooperative relationship between individuals, the organization's view of human nature (trustworthy, lazy, motivated, selfish), and the organization's acceptance of innovation. An organization's culture may be "coherent and consistent or fragmented and poorly understood,"[5] and several researchers distinguish between organizations with strong and weak cultures. Among individuals who have studied and written about organizational cultures, Deal and Kennedy, Peters and Waterman, and William Ouchi all agree that organizations with consistent, commonly held beliefs have strong cultures, and individuals within these organization have clear expectations of their roles and responsibilities.[6] However, a strong culture may not necessarily indicate a successful organization. A strong culture may make an organization rigid and unable to adapt to a changing

environment. A strong culture may also stifle opposing views and foster abuse by dominant individuals.[7]

Subcultures

An organization may have a single culture; however, it is more likely that large organizations will contain numerous subcultures. Subcultures are "distinct clusters of understandings, behavior, and cultural forms that identify groups of people in the organization. They differ noticeably from the common organizational culture in which they are embedded, either intensifying its understandings and practices or deviating from them."[8] Subcultures, like the dominant culture, can be strong or weak, can cross horizontal or vertical boundaries within organizations, and can consist of overlapping memberships. When subcultures have basic assumptions and beliefs that conflict with the dominant culture, they become countercultures.[9] The development of subcultures is natural because of the shared understandings and interpretations of events within work groups.[10] Deal and Kennedy emphasize that subcultures can be destructive if the overall organizational culture is weak.[11]

Integration theories of culture view organizations as consisting of a single, integrated system of values and beliefs. Conversely, differentiation theories describe organizations as a series of overlapping nested subcultures. Sociologist Joanne Martin believes differentiation theories are common in western societies that emphasize the collective actions of heterogeneous individuals and groups, but both theories must be considered in attempting to understand an organization's culture.[12]

In his book, *Occupational Subcultures in the Workplace,* Harrison Trice proposes that occupations constitute a distinctive subculture and are often the most well-organized source of subcultures within an organization. Occupations contain a distinctive set of tasks, and occupational members believe they should direct how, when, and where these distinctive tasks are performed and who is qualified to perform them. He further maintains that members of an organization are often as committed to their occupation as they are to their employing organizations.[13] According to Trice, "occupations can also become countercultures in which the basic ideologies deny, or even reverse, those of the dominant culture of the organization."[14] This theory of occupational subcultures is especially relevant because the military is both an organization and an occupation.

Trice describes how certain forces enhance group identity among members of an occupation. These major forces are:[15]

1. *Esoteric knowledge and expertise:* Through a rigorous socialization process, members come to believe their knowledge, skills, and abilities require a special type of person. This belief is strengthened when the socialization process is extremely harsh, lengthy, and formal; when training takes place in a separate environment; when there is uncertainty whether the newcomer will make the grade; and when the newcomer experiences a great deal of peer pressure to do things in the prescribed way.16 All members of the military undergo some type of initial socialization process. The length and rigor of this process vary for officer and enlisted personnel and are considerably different for each branch of service. The Marine Corps provides the longest and most intense socialization process for its enlisted personnel and purposely "cultivate the most formal culture."17 At only six weeks, the Air Force's basic enlisted training is the shortest of any of the military services. Although the format of Reserve Officer Training Corps, officer training or candidate schools, and academy commissioning programs is similar for each service, the socialization process for these three commissioning programs varies in intensity and length. Individuals who are directly commissioned in the legal, medical, or chaplain sectors have a very short initial socialization process. Additional socialization occurs during specialization training for different skills. Flight training is also a distinct socialization process for pilots of all services. In the words of General "Hap" Arnold, "the silver wings which [the pilot] wears on

7

his chest are symbols which…proclaim the successful completion of training more intense and rigorous than that of any other artisan in combat."18

2. *Extreme or unusual demands:* Members of occupations that operate under stressful, emotional, or dangerous conditions have an increased sense of occupational involvement. Although all members of the armed forces are in some manner involved in either the management or application of violence, some individuals are more personally involved in high-risk activities. Members of the military who believe their job entail special risks or dangers form closer bonds than do others who perform more routine tasks.19

3. *Consciousness of kind:* Members of an occupation clearly distinguish between themselves and outsiders. Members who do not behave according to occupation norms are considered "outsiders." Virtually all members of the military distinguish themselves from civilians, but some Marines actually feel estranged from American society upon completion of basic training.20 Furthermore, members of each military service see themselves as considerably different from the soldiers, sailors, airmen, or marines of the other services.

4. *Pervasiveness:* This refers to the extent that occupational norms influence behavior in both work and non-work environments. A pervasive occupation may influence one's family life, leisure-time activities, and living environment. Traditionally, the military has exerted a very pervasive influence over its members, and the military services still dictate where individuals may live, the type of off-duty employment authorized, and how a person should manage his or her personal and financial affairs.

5. *Self-image and social value:* An occupation causes members to have a positive self-image and believe they are providing a service to society. The military oath ("to support and defend the Constitution of the United States") normally reminds individuals of the service they are providing to American society. The Vietnam era temporarily weakened this positive self-image for military members while DESERT STORM operations strengthened it. 21

6. *Primary reference group:* Individuals look only to members of their occupation for understanding, approval, and judgment. The Uniform Code of Military Justice is a formal means of judging the actions of military members against standards that apply only within the military. The Air Force makes the attempt to staff promotion boards with members from the candidates' primary reference groups.

7. *Abundance of cultural forms:* Cohesive occupations have numerous stories, rituals, and artifacts that are understood by all members. Cultural forms abound in the military. The uniform is an obvious example of a cultural form shared by all military services, and more examples will be discussed later.

Occupationalism

A work by Charles C. Moskos, entitled "Institutional and Occupational Trends in Armed Forces" proposed that the military is moving from a predominately institutional

organization to one becoming more occupational. According to Moskos, an institution is "legitimated in terms of values and norms...transcending individual self-interest in favor a presumed higher good."[22] Members of an institution have broad, generalized responsibilities, and the institution's norms and values apply to members 24 hours a day, both inside and outside the workplace. In other words, an institution has a very pervasive atmosphere. On the other hand, an occupation is "legitimated in terms of the market place." In an occupation, role commitments are job specific, and "the organization is not concerned with the worker's behavior away from work if it does not affect job performance."[23] The military has traditionally been considered an institution. Frank R. Wood continued with Moskos' thesis and theorized that "because of their extensive use of technology, the air force and the air force officer corps tends to be most susceptible to increasing specialization and a diffused sense of purpose.... They face the greatest pressures for occupationalism and serve as a harbinger of things to come for other branches as they become increasingly dependent upon technology."[24]

What Are the Elements of a Culture?

Just as there is no single definition of culture, there is no consensus on the relative importance or role of cultural elements or forms. However, artifacts, patterns of behavior, and ideologies are commonly examined in most studies of organizational culture:

Artifacts

Artifacts are "material and nonmaterial objects and patterns that intentionally or unintentionally communicate information about the organization's technology, beliefs, values, assumptions, and ways of doing things."[25] They are the tangible, constructed

9

aspects of culture shared by members that often have symbolic meanings far more significant than they appear.[26] Material artifacts may be documents, physical layouts or arrangements, furnishings, patterns of dress and dress codes, and technology. The military is full of material artifacts. As mentioned above, the military uniform is a common artifact shared by all the services. Within the Air Force, static airplane displays, occupational badges, and leather flight jackets are all visible artifacts. The type and condition of housing, office, and recreational facilities at each Air Force base are artifacts that communicate essential information about the Air Force's culture. Nonmaterial artifacts may include language, stories, myths, jokes, patterns of administrative behavior, or organizational charts. Three of the most significant nonmaterial artifacts are language, stories, and heroes.

Language. Every culture has its own unique language that must be learned by organizational members to communicate. The US military clearly has a language of its own with distinct dialects spoken by each branch of service and often by specialties within each service. JOPES, SIOP, CINC, TPFDD, and PCS are common terms within the military but are generally unknown to anyone outside it. According to Steven Ott, language can be both an artifact and a shaper of assumptions.[27] Terms such as "zoomie," "ground pounder," "grunt," "warrior," or "non-rated" communicate a meaning far beyond their literal definitions. Jargon and metaphors are specialized types of language. Jargon acts as a verbal shorthand for members and is usually incomprehensible to outsiders. Metaphors communicate symbolic meanings beyond the obvious content of the word or phase.

Stories, Myths and Legends. These are anecdotes about events in an organization's history that often convey key messages implicitly rather than explicitly. Regardless of whether they are true, they reflect important organizational beliefs and assumptions. Stories and myths often have a greater impact on organizational culture than other forms of verbal communications.[28] Organizations with strong cultures usually have numerous stories and legends that are known by most members. Stories of the valor of US Marines at Iwo Jima are reinforced by the visible artifact of the Iwo Jima memorial in Washington, D.C. What is perceived to be a true story by some individuals may be labeled a false myth by others. For example, according to Earl H. Tilford, a professor of military history, if you "ask many airmen about air power in Vietnam, they will relate the *myth* of Linebacker Two."[29]

Heroes. Heroes are the leading actors in organizational stories or myths and personify the values of the culture. The acts of heroes set standards of behaviors and serve as role models for members. The choice of heroes and the acts for which they are known say a great deal about an organization's beliefs, values, and basic assumptions. Douglas MacArthur, George Patton, John Paul Jones, and Billy Mitchell are just a few of the well-known "heroes" in military lore.

Patterns of Behaviors

Rites and Rituals. Rituals are standardized techniques that govern routine day-to-day operations. They create order and predictability. Rituals can be so powerful that conformity to them governs "movement, time, place, language, and sequences of activities."[30] Over time, rituals can lose their meaning and become sources of conflict. Ceremonies are more elaborate displays that provide visible examples of the organization's

11

values and convey meaning to those within and outside the organizations. Saluting, parades, reporting procedures, staff meetings, change of command and promotion ceremonies, and dining-ins are just a few common military rituals. Membership in an enlisted or officers club is also a military ritual.

Behavior Norms. A norm is a "principle of right action binding upon the members of a group and serving to guide, control or regulate proper and acceptable behavior."[31] Norms provide a blueprint for general and specific actions and provide structure and coherence to daily activities. Each of the military services has distinct norms for acceptable behavior both on and off-duty. For example, an officer's use of an enlisted person's first name is an acceptable behavior norm within the Air Force.[32]

Ideology

Some sociologists believe the ideology of an organization actually defines its culture and that the other cultural forms are just results of the ideology.

Beliefs and Values. Beliefs and values are the conscious ideologies that guide and justify actions and behaviors.[33] Whereas "beliefs" are what individuals hold to be true or not, "values" are the things that are important to people and determine the "should's" and "ought-to's" of an organization and its members. These beliefs and values also form the ethical and moral codes of an organization. Daniel Denison states that values serve as an evaluation base that members use to judge situations, actions, objects, and people.[34] Deal and Kennedy maintain that beliefs and values are used to define the success of an organization.[35] Doctrine is a formal manifestation of a military organization's beliefs.

Assumptions. Shein proposes that the "basic underlying assumptions" of an organization define the highest level of organizational culture and are the real factors that

12

determine how people behave.[36] Whereas organizations and members are conscious of their beliefs and values, assumptions are often unspoken and unrecognized. They are indirectly taught to new members through stories and rituals. Basic assumptions can often differ dramatically from espoused values and beliefs and can often be detected by an inconsistency in words and actions. If the basic assumptions are not universally shared by all members of the organization, fragmentation can occur. To understand the Air Force's culture, it will be necessary to identify the underlying assumptions.

Where Does an Organization's Culture Come From?

Ott provides a comprehensive analysis of the origins of an organization's culture. He believes it is a unique blend of the broader societal culture, the nature of the organization's business, and the beliefs, values, and assumptions of the founder or other early dominant leaders.

Broader Culture

Each organization exists as part of a larger society, and the dominant culture of the society plays a key role in shaping the culture of the organization. The distinct cultures of different nations or ethnic groups are often compared and contrasted in an attempt to understand or predict the behavior of the people. A society's culture may change over time and be reflected through changing norms, beliefs, values, or life-style patterns. These changes in society exert a subtle but unrelenting pressure on organizations.

Nature of Organization's Business

The purpose or mission of an organization also shapes its culture. Deal and Kennedy refer to this as the "business environment," and they believe it is the single greatest

influence in forming an organization's culture.[37] Organizations differ according to their products or services, technologies, customers, and external constraints. Organizations that have similar purposes or are composed of members of a recognized profession often share common values and beliefs with organizations or individuals located in different areas or societies. For example, members of the medical profession in one service may have more in common with doctors and nurses from the other services or with the civilian medical community than they have with other members of their own service.

Founders and Other Early Leaders

An organization's culture originates with an individual who has a strong new vision and attracts others to his beliefs and ideas. This core group then acts to create an organization to fulfill its vision. New members who share the ideas of the founders eventually move into executive positions, and the ideas are passed from generation to generation. Over time, the organization's culture and cultural forms develop and evolve based on the external environment and the beliefs of new leaders.[38]

An organization's culture is transmitted and perpetuated through a variety of means. New individuals are attracted to an organization because of their perceptions of the organization's purpose and culture. The organization also establishes procedures to recruit people who seem to have the potential or capabilities desired within the organization. This self-screening and organizational screening acts as a filter to bring in or keep out certain types of people. Once hired, socialization occurs, either formally or informally, as new members are "taught" the organization's culture. Individuals whose behavior conforms to the organization's culture are "rewarded," whereas individuals who do not conform leave either voluntarily or involuntarily.

14

Why Is It Important To Understand an Organization's Culture?

In spite of their different views of culture, all the researchers agree that an understanding of an organization's culture is important for several interrelated reasons:

1. Organizational culture affects how employees do their jobs. The culture provides an informal set of rules that indicate what is expected and how people are supposed to behave most of the time. Culture also affects how people feel about what they do and the organization they belong to.39
2. Organizational cultures are highly visible and can be perceived both internally and externally. This affects the relationship of the organization to its external environment, and it also influences the type of people who enter and remain with the organization.40
3. An understanding of an organization's culture is necessary to accurately describe, explain, or predict current and future behavior. Furthermore, it is necessary to understand the basis of an organization's existing culture to know how to change it.41
4. The overall effectiveness of an organization depends upon translating the values and beliefs held by members of an organization into consistent policies and practices compatible with the mission and external environment of the organization.42
5. The primary role of leaders may be to create and manage culture. Deal and Kennedy state that:

> Senior executives and especially chief executive officers may be missing out on one of the key ingredients for their companies' eventual success by ignoring either the influence of culture on corporate success or their own central role in shaping it. . . . The ultimate success of a chief executive officer depends to a large degree on an accurate reading of the corporate culture and the ability to hone it and shape it to fit the shifting needs of the marketplace.[43]

The Military Profession

Many authors have attempted to describe the military profession. Among the leading researchers into the characteristics and behavior of the US military are Samuel Huntington, Morris Janowitz, Charles Moskos and Martin Edmonds.[44] Their works provide excellent insight into the military ethos, but they do not explain the cultural differences between the services. Carl Builder has attempted to describe how the

15

"institutional personalities" of each service influence their approaches to strategy and analysis, and he has also attempted to describe the dysfunctional aspects of the Air Force's institutional personality.[45] However, he does not fully investigate the reasons why the Air Force has developed a culture distinct from the other services. Chapter III will use these theories of organizational culture to describe how and why the Air Force developed its distinct culture.

Notes

[1] *Merriam-Webster's Collegiate Dictionary,* 10th ed. (1993), s. v. "Culture."

[2] Shein, 9.

[3] David Drennan, *Transforming Company Culture: Getting your company from where you are now to where you want to be* (London: McGraw-Hill Book Company, 1992), 1.

[4] J. Steven Ott, *The Organizational Culture Perspective* (Chicago, Ill.: Dorsey Press, 1989), 50.

[5] Terrence E. Deal and Allen A. Kennedy, *Corporate Cultures: The Rites and Rituals of Corporate Life* (Reading, Mass.: Addison-Wesley Publishing Company, Inc., 1982), 18.

[6] Thomas J. Peters and Robert H. Waterman, Jr., *In Search of Excellence: Lessons from America's Best-Run Companies* (New York: Warner Books, 1981) and William G. Ouchi, *Theory Z: How American Business can meet the Japanese Challenge* (New York: Avon Books, 1981).

[7] Ott, 192 and Deal and Kennedy, 159.

[8] Joanne Martin, *Cultures in Organizations: Three Perspectives* (New York: Oxford University Press, 1992), 92.

[9] Among other authors, Ott, Martin, and Deal and Kennedy cited above describe the existence and effect of countercultures within an organization.

[10] Gerald L. Pepper, *Communicating in Organizations: A Cultural Approach* (New York: McGraw-Hill, Inc., 1995), 38.

[11] Deal and Kennedy, 34-36, 152.

[12] Joanne Martin, *Cultures in Organizations: Three Perspectives* (New York: Oxford University Press, 1992), 83.

[13] Harrison M. Trice, *Occupational Subcultures in the Workplace* (Ithaca, NY.: ILR Press, 1993), 144.

[14] Trice, 146.

[15] Trice, *26-38.*

[16] Ibid., 26-27.

[17] Thomas E. Ricks, "Separation Anxiety: 'New' Marines Illustrate Growing Gap Between Military and Society," *The Wall Street Journal*, 27 July 1995, A1.

Notes

[18] Lt Gen H[enry].H. Arnold and Brig Gen Ira C. Eaker, *Army Flyer* (New York: Harper & Brothers Publishers, 1942), 9.

[19] There are many reference to the bonding that occurs among individuals who share special risks. Philosopher and former combat soldier, J. Glenn Gray, stated, "This confrontation of danger and exposure is unequaled in forging links among people of unlike desire and temperament, links that are utilitarian and narrow but no less passionate because of their accidental and general character." Quoted in Charles C. Moskos, Jr., *The American Enlisted Man: The Rank and File in Today's Military*, (New York: Russell Sage Foundation, 1988), 8. The 1950 version of *The Armed Forces Officer* also discusses the value of "living dangerously" and states that "Who risks nothing gains nothing." Department of Defense, *The Armed Forces Officer* (Washington, D.C.: Government Printing Officer, 1950), *12.*

[20] Ricks, A1.

[21] The need for post-Vietnam reform and a search for honor in the Army is extensively discussed in Richard A. Gabriel and Paul L. Savage, *Crisis in Command: Mismanagement in the Army* (New York: Hill and Wang, 1978).

[22] Charles C. Moskos, "Institutional and Occupational Trends in Armed Forces," in Charles C. Moskos and Frank R. Wood, eds., *The Military: More Than Just a Job?* (Washington, D.C.: Pergamon-Brassey's International Defense Publishers, 1988), 16.

[23] Ibid., 15-17.

[24] Frank R. Wood, "At the Cutting Edge of Institutional and Occupational Trends: The U.S. Air Force Officer Corps," in Charles C. Moskos and Frank R Wood, eds., *The Military: More Than Just a Job?* (Washington, D.C.: Pergamon-Brassey's International Defense Publishers, 1988), 27.

[25] Ott, 32.

[26] Daniel R. Denison, *Corporate Culture and Organizational Effectiveness* (New York: John Wiley & Sons, 1990), 33.

[27] Ott, 27.

[28] Ibid., 32.

[29] Earl H. Tilford, Jr., *Setup: What the Air Force Did in Vietnam and Why* (Maxwell AFB, Ala.: Air University Press, June 1991), xvii.

[30] Ott, 36.

[31] *Merriam-Webster's Collegiate Dictionary,* 10th ed. (1993), s. v. "Norm."

[32] AFP 36-2241, *Promotion Fitness Examination Study Guide*, vol. 1, 1 July 1995, 141.

[33] Ott, 39.

[34] Denison, 33.

[35] Deal and Kennedy, 14.

[36] Shein, 18.

[37] Deal and Kennedy, 13.

[38] Shein, 210.

[39] Deal and Kennedy, 15-16 and Ott, viii.

[40] Shein, 24.

Notes

[41] Ott, 74.

[42] Denison, 5-6 and Thomas J. Peters and Robert H. Waterman, Jr., *In Search of Excellence: Lessons from America's Best-Run Companies* (New York: Warner Books, 1981), 103.

[43] Deal and Kennedy, 18.

[44] Among their works are Samuel P. Huntington, *The Soldier and the State: The Theory and Politics of Civil-Military Relations,* 11th ed. (Cambridge, Mass.: Belknap Press, 1957); Morris Janowitz, *The Professional Soldier: A Social and Political Portrait* (Glencoe, Ill.: Free Press, 1960); Charles C. Moskos, "From Institution to Occupation: Trends in Military Organization," *Armed Forces & Society* 4 (1977); and Martin Edmonds, *Armed Services and Society* (Boulder, Co.: Westview Press, 1988).

[45] Carl H. Builder, *The Masks of War: American Military Styles in Strategy and Analysis* (Baltimore, Md.: Johns Hopkins University Press, 1989) and *The Icarus Syndrome: The Role of Air Power Theory in the Evolution and Fate of the U.S. Air Force* (New Brunswick: Transaction Publishers, 1994).

Chapter 3

The Origins of Air Force Culture

What Factors Shaped Air Force Culture?

The US Air Force does not exist in isolation. It is a product of its broader culture, its historical origins and the ideas of its founders, and the nature of its business. In order to understand the Air Force as it exists today, it is necessary to consider the influence of each of these factors.

Broader Culture

The Air Force exists as a subset of American society and the United States military.

US Culture. Historically, the culture of the United States is derived from a western European Anglo-Saxon heritage, but Americans developed a unique ideology based on different concepts of individual rights and on different ideas about the relationship of government to individual citizens. This ideology is set forth in The Declaration of Independence and the Constitution. In *The Soldier and the State*, Samuel Huntington states that the American industrial society fostered a "spirit of independence, little faith in governments, hostility to arbitrary power, reliance on individual initiative, and a respect for the individuality of others."[1] General Creech, former commander of Tactical Air Command, adds that Americans "believe in opportunity, not equality. Faith in individual

19

effort and reward remain strong."[2] Within any culture, social values can change over time. Chapter VI will discuss the changes that are occurring in the broader American society.

Military Culture—Historical Foundations. It would be extremely difficult to establish the precise origins of the first army or navy. Written history abounds with stories of ancient armies and navies. Detailed records exist of extensive army campaigns by Sargon the Great in 2300 B.C.,[3] and Thucydides describes large naval operations in 431 B.C. in *The Peloponnesian War*.[4] Over many centuries, as concepts of land and naval warfare evolved, armies and navies developed their own distinct cultures. In his classic work, *On War*, Carl von Clausewitz writes that "soldiers will think of themselves as members of a kind of guild, in whose regulations, laws and customs the spirit of war is given a pride of place."[5]

Samuel Huntington believes the rise of military "professionalism" occurred in Europe in the early 1800s. Prior to that, officership was a either a business or a hobby for mercenaries or aristocrats. France, England, and Prussia led the way in the development of professional expertise, responsibility, and corporateness to create a professional military ethic.[6]

US Military. The US Navy, Army, and Marine Corps proudly point to their origins during the American Revolutionary War. Their organizations and operational concepts were influenced by both the new American society and European military practices. In *The Soldier and the State,* Huntington traces the development of the American military culture from the Revolutionary war through the late 1950s. According to Huntington, the most significant period occurred in the post-Civil War years. After this war, America entered into a period of "business pacifism" marked by individualism, liberalism, and an

20

extreme antipathy to all things military. Military budgets were cut; force strengths were reduced; and the military was isolated both physically and socially. However, "the very isolation and rejection which reduced the size of the services and hampered technological advances made these same years the most fertile, creative, and formative to the history of the American armed forces. The officer corps was able and permitted to develop a distinctive military character. The American military profession, its institutions and its ideas, is fundamentally a product of these years."[7] Isolated and ignored by most of US society, Army and Navy officers developed a distinct military culture that was essentially a counterculture to the dominant American society. The military philosophy that evolved had a pessimistic view of mankind and saw conflict as a universal pattern that could not be eliminated by institutional devices designed to prevent wars. The military was corporate in spirit and extremely anti-individualistic. "The pervading spirit of individualism was seen as infiltrating the services and undermining their effectiveness."[8] "Tradition, esprit, unity, community," and the "ordered, purposive study of history" were held in high value.[9] Military officers were taught to be apolitical, and the supreme military virtue was obedience. Huntington characterized the military mind as "disciplined, rigid, logical, [and] scientific;" not "flexible, tolerant, intuitive, emotional."[10] Although the military existed as a counterculture to American society, the military's belief in the primacy of civilian control minimized the effect of these conflicting ideologies.

Within this distinct military culture, Huntington also identified several potential sources of conflict for the military professional. One of these, the conflict between military obedience and professional competence, is particularly relevant to this study. Huntington explains that "rigid and inflexible obedience may well stifle new ideas and

become slave to an unprogressive routine. It is not infrequent that a high command has had its thinking frozen in the past and has utilized its control of the military hierarchy to suppress uncomfortable new developments in tactics and technology. In a situation of this sort, to what extent may a junior officer be justified in disobeying his superiors to advance professional knowledge? . . . Ultimately, professional competence must be the final criterion."[11] It was from within this existing culture that the United States Air Force was born.

Air Force History

Origins. Unlike army, navy, or marine forces, the history of air forces is both well known and well documented. Although some might consider the early kites, gliders, or balloons to be precursors to an air force, a more valid starting point must be the first sustained and controlled powered flight of the Wright Flyer on 17 December 1903. This first flight was preceded by centuries of visions of manned flight that failed for lack of adequate technology. It is important to remember that the airplane was completely a product of the industrial age in an era that believed in scientific methods and approaches. Because the origins are so well known, it is not necessary to provide a complete historical review; however, there are salient features of this history that have a significant impact on Air Force culture.

Although the first military aircraft was purchased in 2 August 1909, the US Air Force was not established as an independent military service until 1947. During the intervening years, airmen formed a distinct ideology concerning the use of air power. *The technology that made the airplane possible could bring about an entirely new manner of waging war from the third dimension. The battle could be taken directly to the heart of the enemy*

and bypass surface forces. This could allow national objectives to be accomplished more rapidly with fewer casualties and with fewer forces. Early airmen saw strategic bombardment as the method of waging this new form of warfare; however, this ideology was rejected by the existing Army and Navy hierarchy who had perhaps become a "slave to an unprogressive routine." Because of the opposition to this new ideology, many airmen became convinced of the need for an independent air force and began to develop doctrines to support independent air operations. Just as the Army and Navy existed as a counterculture to broader American society, airmen also formed a distinct counterculture whose basic ideologies completely denied those of the dominant military culture. As early as 1919, the activities of the Air Service's Training and Operations Group under the lead of Billy Mitchell "were so clearly contrary to the official positions of the War Department" that it was recommended that either Mitchell sign a statement of loyalty or all of the Training and Operations Group division heads be relieved.[12] Although Mitchell may have been the most well known and outspoken of the early air advocates, he was not alone; however, Mitchell's court-martial in 1925 convinced others of the need to be more discreet in promoting their beliefs. Even though official War Department documents clearly stipulated that air power was a subordinate and supporting force, the Air Corps Tactical School continued to develop and teach a totally different role for an air force. These years of struggle, exile, frustration, and disappointment only strengthened the beliefs of airmen and convinced them that an air force was totally unlike the other services.

The airplane was a creation of technology that gave rise to an entirely new vision of warfare that could be made possible only by further technological advances. Even though the existing technology lagged behind the vision, airmen developed strategy and doctrine

to match the vision. In order to enable technology to catch up with the vision, airmen broke with the apolitical, isolationist military culture and presented their arguments to congress, the press, and the American public. They also developed close relationships with civilian aircraft industries to bring about the technological improvements necessary to implement their vision. The later introduction of intercontinental ballistic missiles was completely compatible with the original visions of strategic warfare from the third dimension. These assumptions and beliefs were so ingrained that not even the non-strategic use of air power in Korea and Vietnam could displace them. It has been said that DESERT STORM was the first US military operation in which the available technology, in the form of precision weapons, enhanced munitions, and stealth and defensive air capabilities, finally matched the original air power vision.[13]

Founders. The beliefs, personalities, and attitudes of the founders of the Air Force also had a profound effect on the culture. The current USAF enlisted promotion fitness examination (PFE) study guide describes Billy Mitchell as the most important individual in the eventual creation of an independent air force. In pursuit of his vision, the PFE describes how he leaked his bombing test reports to the press, published a series of air power articles without permission, and openly accused the higher command of "incompetence, criminal negligence, and inaction in the interest of national defense."[14] Although Billy Mitchell resigned from the military in 1925 and did not live to see the establishment of "his" independent air force, his ideas and beliefs clearly were influential on many other individuals. At Mitchell's court-martial, two of his most ardent disciples, Henry "Hap" Arnold, and Carl A. "Tooey" Spaatz, testified on his behalf against the

recommendations of the General Staff. It is worthwhile to examine the traits of these two followers who remained in the military hierarchy.

A colleague of Arnold's said, "If he thought something needed to be done, he would not let regulations stand in his way, nor did he hesitate to overlook any law that would delay getting things done...he did not stand quietly under disciplinary restraint, formal channels, or methods. He was a maverick."[15] However, Arnold's vision of the Air Force included more than just pilots and airplanes. "The new size of the air army makes it impossible and even undesirable that every key artisan be a pilot. Many of them...need not even be flyers at all."[16] Spaatz, too, had a nonconformist history. He was rated 102 out of 107 in conduct at West Point; during prohibition, he admitted to permitting his officers to have liquor on base; he received a reprimand for disregarding regulations while serving as Post Commander at Selfridge Field, Michigan; and both General Eisenhower and General Patton criticized him for his casual approach in instilling and enforcing discipline while serving as the Commanding General of American Air Forces in Africa.[17]

In spite of their non-conventional behavior, both men eventually reached the highest positions within the American air arm: Arnold served as the Chief of the Air Corps and Army Air Forces from September 22, 1938 through February 9, 1946 and became the first four-star and five-star general as an air officer. Spaatz was the Commanding General, US Army Air Forces from February 10, 1946 through September 25, 1947 and became the first Chief of Staff of the US Air Force from September 26, 1947 through April 30, 1948. Although this selective review ignores the positive accomplishments of Mitchell, Arnold, and Spaatz, their experiences and beliefs set the original tone for the Air Force as we know it today.

Service Philosophies. To implement their revolutionary ideology, these maverick airmen also believed an air force needed "an entirely different system of training, education, reserves, and replacements, from that of the other services."[18] Contrary to the Army's and Navy's corporate spirit, Mitchell stated, "The air man's psychology of war depends on the action of the individual."[19] Mitchell may not have known anything about "organizational culture," but he did recognize that airmen did not possess the same culture as their surface brethren.

> The air-going people have a spirit, language, and customs of their own. These are just as different from those on the ground as those of seamen are from those of land men. In fact, they are much more so because our sea-going and land-going communities have been with us from the inception of time and everybody knows something about them, whereas the air-going people form such a new class that only those engaged in its actual development and the younger generation appreciate what it means.20

This new organizational culture was not limited to pilots. Mitchell also described the differences needed in the support structure:

> The mechanics that keep the airplane in the air in their way are as important as the pilot. An air mechanic is entirely different from any kind of a soldier of sailor. . . . Mechanics should be housed and cared for on a scale which is the equivalent of the living conditions of the expert mechanics in civil life. These men must be handled as expert mechanics, not as infantry soldiers or seamen. . . . They should do only sufficient exercises to keep them in good physical condition so that they may work on the airplanes."21

Mission

The third major factor in shaping an organization's culture is the nature of the organization's business. Although "the fundamental purpose of the Armed Forces is to fight and win our Nation's wars,"[22] each service does this in a different way. The Army and the Marines fight with soldiers, organized into combat arms branches or marine amphibious task forces; the Navy fights with ships afloat, organized into surface,

submarine, or carrier-based aviation units; the Air Forces fights with technology, primarily manned aircraft, missiles, and space systems. Although one can find exceptions within each service to these broad categorizations, they don't alter the primary modes of warfighting. Each service trains, organizes, and equips to support its primary mode of warfighting. Army and Marine efforts are focused on supporting the soldier; the Navy must support its ships and their crews; and the Air Force is focused on supporting its technological platforms.

As a result of these different modes of warfighting, each service has different views of war. Technology allows the Air Force to fights wars from a distance. Even pilots who actually go into a combat area drop their bombs or fire their missiles remotely from their targets. Furthermore, pilots and aircrews are usually the only individuals who are subject to direct battle casualties. Although no area may be totally "safe" from enemy action, the majority of Air Force personnel operate from "rear areas," usually removed from direct danger. (According to a former US Marine Corps Commandant, "there are no 'rear area' Marines."[23]) In today's era of Global Reach, Global Power, and Global Presence, the rear echelon may even be in the United States. Conversely, the individual soldiers who make up the combat branches of the Army and the Marines must directly confront the adversary and face immediate death and danger. Within the Navy, ships sail "in harm's way" to confront the enemy. Although the actual fighting is done from a distance, the entire crew complement of each ship is at risk from enemy action. Naval aviators may share the same remote view of combat as Air Force aviators, but their carriers are not in a safe rear area.

Operating from the third dimension, airmen also have a different concept of time and distance. Terrain is something to be flown over or viewed from high altitude surveillance

systems. Time is dependent upon the technological platform used: the range and speed of the aircraft or missile or the capability of the satellite systems.

Air Force Beliefs and Assumptions

These environmental, historical, and "business" factors are the basis for the underlying assumption that has shaped and created the Air Force culture. The original assumption was that technology could make possible a new and better way to fight and win our nation's wars. The Air Force was "invented" to better manage the unique military capabilities made possible by aircraft technology, and it developed doctrines and strategies to accommodate the capabilities of air and aerospace technology.[24] Remove the technology base (the aircraft, missiles, and space systems), and the Air Force no longer has a reason for existing. In *The Masks of War*, Carl Builder says the Air Force worships at the "altar of technology" and measures itself in terms of having the newest and best technology.[25] Most current Air Force personnel policies, leadership philosophies, and doctrines are a result of a tacit acceptance of this underlying assumption, and most internal and external disputes are the result of disagreements with this basic assumption. The short history of air power has constantly focused on ways to use and improve technology, and research and development and acquisition initiatives continue to search for better technologies.

What distinguishes the Air Force from the other services who also use technology is the Air Force's belief that technology can provide an entirely new manner of waging war. The current version of basic aerospace doctrine states "the advent of air power, and later aerospace power, did not change the essential nature of war, but air power did change the

28

way war is conducted."[26]   Although technology (submarines, nuclear power, cruise missiles, and carrier-based aviation) has had a radical impact upon the US Navy and is being integrated into Army operations, the Army and Navy are still governed by many concepts of warfighting that have been passed down through the centuries. The other services use technology to enhance their traditional warfighting methods at the tactical and operational levels of war; however, the basic Air Force assumption is that technology can be best used for strategic operations. It does not matter whether this technology takes the form of strategic bombers, advanced fighter aircraft, strategic ballistic missiles, or space-based systems. One could think of the Air Force as "Technology 'R' Us."

In conjunction with this pervasive belief in technology, the Air Force also believes in the supremacy of individual efforts and ideas. Individuals may work together in heterogeneous teams, but not homogeneous groups. Therefore, training and education are important to develop the individual skills essential in a technology-based environment.

Notes

[1] Huntington, 225.

[2] Bill Creech, *The Five Pillars of TQM: How to Make Total Quality Management Work For You* (New York: Truman Talley Books/Dutton, 1994), 434.

[3] Richard A. Gabriel and Karen S. Metz, *A Short History of War: The Evolution of Warfare and Weapons* (Carlisle Barracks, Pa.: Strategic Studies Institute, 30 June 1992), 5.

[4] Thucydides, *The Peloponnesian War*, The Crawley Translation, Revised with an Introduction by T. E. Wick (New York: The Modern Library, 1982), 3.

[5] Carl von Clausewitz, *On War,* ed. and trans. Michael Howard and Peter Paret (Princeton, N.J.: Princeton University Press, 1976), 187.

[6] Huntington, 19.

[7] Ibid., 229.

[8] Ibid., 267.

[9] Huntington, 63-64.

[10] Ibid., 60.

[11] Ibid., 75.

Notes

[12] Robert Frank Futrell, *Ideas, Concepts, and Doctrine: Basic Thinking in the United States Air Force, 1907-1960*, vol. 1 (Maxwell AFB, Ala.: Air University Press, 1989), 31-32.

[13] Richard P. Hallion, *Storm over Iraq: Air Power and the Gulf War* (Washington, D.C.: Smithsonian Institution Press, 1992), 1.

[14] AFP 36-2241, *Promotion Fitness Examination Study Guide*, vol. 1, 1 July 1995, 42-43.

[15] Edgar F. Puryear, Jr., *Stars in Flight: A Study in Air Force Character and Leadership* (Novato, Calif.: Presidio Press, 1981), 12.

[16] Arnold and. Eaker, 6.

[17] Puryear, 50, 69, 94-95

[18] William Mitchell, *Winged Defense: The Development and Possibilities of Modern Air Power—Economic and Military* (1925; Reprint, New York: Dover Publications, 1988), 113.

[19] Ibid., 160.

[20] Ibid., 6.

[21] Ibid., 176-177.

[22] Department of Defense, *National Military Strategy of the United States of America 1995* (Washington, D.C.: Government Printing Office, 1995), cover letter.

[23] Gen Carl E. Mundy, Jr., "Every Marine a Rifleman," *Marine Corps Gazette* 77, no. 1 (January 1993): 12.

[24] Builder, *The Masks of War,* 19.

[25] Builder, *The Masks of War*, 18-22.

[26] AFM 1-1, *Basic Aerospace Doctrine of the United States Air Force,* vol. 1, March 1992, 5.

Chapter 4

Service Differences

The Air Force's technology-based culture can be clearly seen by examining of some of the differences between the Air Force and the other services.

Different Reasons People Join Each Service

Individuals have many different reasons for joining the military. Some are influenced by friends or family members who are or have been in the military. Others are influenced by recruiting efforts and media reports of military operations. Each year, the Department of Defense conducts a Youth Attitude Tracking Study (YATS) to determine the propensity, attitudes, and motivations of young people toward military service. The study tracks reasons for joining as well as for not joining the military. Reasons for joining include educational funding, job training/experience, duty to country, pay, travel, and development of self-discipline. Reasons for not joining include a dislike for military lifestyle, other career interests, length of enlistment commitments, danger and threat to life, family obligations, and personal convictions and beliefs against military.[1] Table 1 shows slightly more youth indicated they were possibly interested in joining the Air Force instead of one of the other services.

Table 1. Enlistment Propensity (16-21 Year-Olds)

	DOD*	ARMY	NAVY	USMC	USAF
White Males	25	9	8	9	11
Black Males	36	16	16	14	17
Hispanic Males	39	20	10	19	24
Total Males	28	11	9	10	13
White Females	8	2	2	1	4
Black Males	20	9	5	6	14
Hispanic Females	23	14	11	14	13
Total Females	11	4	3	3	7

Source: Department of Defense, Annual Report to the President and the Congress, Washington D.C.: Government Printing Office, February 1995. Data as of 30 September 1994.
*Percent saying they will "definitely" or "probably" be in one of the services.

Although the study distinguishes between the enlistment propensity for each service, it does not provide specific reasons why an individual would chose one service over another. However, interviews with recruiters indicate that individuals have certain preconceived ideas of what their lives will be like in each service.[2] The individual who joins the Navy expects to live aboard a ship and travel around the world. The job is expected to be somewhat technical but not too physically demanding. The individual who joins the Army sees himself in one of the combat arms deployed to places like Bosnia or Haiti. He anticipates a rigorous physical challenge and often austere living conditions. A potential Marine sees himself as one of "The Few, the Proud, the Marines!" However, the Air Force is different. Either one joins to become a pilot or one joins expecting a high-tech job and a mental rather than physical challenge with better working and living conditions than would be found in the other services. These views are similar to the service stereotypes described by Moskos in 1970: "Air Force, technical training and glamour; Navy, travel and excitement; Marine Corps, physical toughness and danger;

Army, ponderous and routine."[3]   Although none of these images is a completely valid picture of the four services, they are common perceptions and serve as preselection filters for recruits.

Different Personnel Requirements

As a technology-based culture, the Air Force needs people who can design, operate, maintain, analyze, manage, and "lead" technological systems. A review of the number of military personnel on active duty as of 30 September 1994 (Table 2) indicates several obvious differences between the four services. The Air Force has the highest percentage of officers, the lowest enlisted to officer ratio, and the smallest percentage of enlisted personnel serving in the first three grades. These results reflect the Air Force's policy of using officers as the primary operators of its high-tech warfighting systems and are consistent with the greater need for experienced enlisted personnel to support these systems.

Table 2. DOD Manpower Statistics

	ARMY	NAVY	USMC	USAF
Total Officers	84,807	61,750	17,823	81,003
Total Enlisted	452,513	402,635	156,335	341,317
Total Cadets	4,023	4,277	---	4,007
Total Military	541,383	468,622	174,158	426,327
Percent Officers	16%	13%	10%	19%
Enl/Off Ratio	5.3	6.5	8.8	4.2
Percent E1-E3	26%	29%	49%	23%
Percent E4-E6	61%	60%	43%	64%
Percent E7-E9	13%	11%	8%	14%

Source: Department of Defense, *Selected Manpower Statistics: Fiscal Year 1994,* Washington, D.C.:   Government Printing Office, 98-109. Data as of 30 September 1994.

Different Emphasis on Mental Ability

Each service places a different emphasis on mental ability. The Air Force believes its high-tech environment requires mental agility and cognitive skills, and this is reflected in different entry level requirements. The minimum score on the Armed Services Vocational Aptitude Battery (ASVAB) is 45 for the Air Force and 31 in each of the other services.[4] Although recruiting has become more difficult for each service, former Air Force Chief of Staff General McPeak said the "Air Force should sacrifice its recruiting goals rather than accept lower-quality recruits."[5] In spite of these difficulties, in 1995 the Air Force actually increased its percentage of recruits who scored in the top fifty percent (categories I, II, and IIIA) while the percentages dropped for all of the other services.[6] Table 3 indicates the percentage of recruits who placed within each category. Although many individuals in the Army, Navy, or Marines are just as bright as those in the Air Force, their services place a lower emphasis on mental skills.

Table 3. Percentage of Recruits In ASVAB Categories

	ARMY	NAVY	USMC	USAF
Category I	4.7%	5.4%	3.5%	6.0%
Category II	34.9%	36.2%	34.5%	46.9%
Category IIIA	29.8%	24.5%	27.7%	31.4%
Category IIIB	28.9%	33.9%	34.3%	15.6%
Category IV	1.7%	0.0%	<0.1%	0.2%

Source: *Air Force Times* 56, no. 18, 4 December 1995, 8.

In addition to recruiting individuals with higher ASVAB scores, the Air Force also places a great deal of emphasis on education for service members. Table 4 shows that all Air Force personnel have at least a high school diploma and more Air Force personnel have completed some college than the other services. The 1993 Youth Attitude Tracking Survey indicated that 28 percent of men and 29 percent of women list education funding

as a reason for joining the military—this emphasis on education also helps in Air Force recruiting efforts.

Table 4. Enlisted Educational Rates

	ARMY	NAVY	USMC	USAF
Graduated From College	3..4%	2.4%	1.2%	4.4%
Completed >2 Years College	18.1%	9.5%	3.6%	16.4%
Completed Some College	27.5%	11.7%	6.8%	37.9%
High School Graduate	99.6%	97.1%	99.9%	100.0%

Source: Department of Defense. *Selected Manpower Statistics: Fiscal Year 1994,* Washington, D.C.: Government Printing Office, 98-109. Data as of 30 September 1994

The Air Force has established internal programs to support this emphasis on education. The 1995 Quality of Life Task Force reported that "a well-educated and trained force enhances performance, and educational opportunities aid in retention. Similarly such opportunities motivate service members, increase their self-confidence, and positively affect their "quality of life."[7] Although limited funding and different "ops" tempo prevent some individuals from continuing their education, the Task Force indicated that the Air Force provided the best support for educational advancement through the Community College of the Air Force (CCAF) and better tuition assistance programs. Air Force supervisors told the Task Force that CCAF graduates produced higher quality work, possessed better written and oral communication skills, were more supportive of their unit, and displayed stronger allegiance to the Air Force mission.[8] Furthermore, active duty promotion results showed that Community College of the Air Force participants were twice as likely to advance as non-participants. Support for tuition assistance programs (Table 5) clearly indicates the different emphasis each service places on education.

Table 5. Undergraduate Tuition Assistance Programs

Service	Policy & Limits	FY 95 Budget ($ million)	Per Capita Cost ($)
Army	75 percent reimbursement up to maximum of $60/$85 per credit hour (higher rate for upper level courses)	34	66
Navy	75 percent reimbursement up to maximum of $125 per credit hour or $285 per course	25	55
Air Force	75 percent reimbursement up to maximum of $250 per credit hour. No limit on courses; however, no more than 15 hours per week.	60	149
Marines	75 percent reimbursement not to exceed $2150 per Fiscal Year.	9.6	55

Source: Department of Defense, Report of the Task Force on Quality of Life, Chapter 4.

Different Emphasis on Physical Ability

Although all of the services need a healthy workforce, each service has different physical requirements based on different missions and modes of warfighting. Mental skills are obviously important in a technology-based culture; physical skills are less so. Army Field Manual 100-5 states: "For soldiers, the rigors of battle demand mental and physical toughness and close-knit teamwork;"[9] however, unlike soldiers or marines, airmen are not required to "take that hill" or dodge enemy bullets. Just as Mitchell indicated that mechanics only needed to do enough exercise to stay in sufficient shape to work on their airplanes, the Air Force has emphasized aerobic fitness and health for its personnel instead of strength and physical toughness. With the exception of a few career fields (pilots, security police, combat control teams, etc.), the majority of Air Force jobs do not require exceptional physical fitness or strength. The Air Force's annual cycle ergometry test is designed to determine only whether individuals are aerobically fit. Since physical

capability is essential to the Army and the Marines, entire units participate in physical training three times a week, and personnel are evaluated twice a year. The Army even annotates an officer's weight and fitness category on Officer Evaluation Reports.[10] The Navy's fitness program requires that individuals pass a semiannual evaluation consisting of sit-ups, push-ups, and a one and a half-mile timed run. Like the Air Force, the Navy considers fitness to be an individual rather than a unit responsibility.

Military recruiters have indicated that physical requirements often influence an individual's decision to enlist in a specific branch of the military. Individuals considering the Air Force or the Navy do not expect as demanding a physical challenge as those interested in the Army or Marine Corps.[11] The different physical demands of each service were highlighted in a recent study entitled "Military Retirement and Personnel Management: Should Active Duty Military Careers be Lengthened?" The study suggested that "people in the Air Force could serve longer than those in the Army and Marine Corps because the latter two have more specialties and assignments requiring youth and vigor."[12] Within the Navy, the study indicated there were different requirement for shore-based and seagoing personnel.

Although the Air Force's cycle ergometry program has been a subject of controversy within the Air Force, Dr Gerald Fletcher, professor of medicine at the Mayo Clinic and advisor to the American Heart Association, has said the Air Force has done more scientifically based testing to validate its fitness program than any of the other services. "When it comes to fitness, Air Force is the leader among the other services."[13] The Air Force's fitness program is appropriate to the demands of its mission and fits into a culture

emphasizing "brains instead of brawn." It seems appropriate that the Air Force should look for a technological means to determine the fitness of its personnel.

Different Emphasis on Quality-Of-Life Issues

"The Air Force builds golf courses and officers' clubs before it builds runways." Although this phrase is usually offered as a criticism about the Air Force's attitude toward mission requirements, it should be considered a statement about the Air Force's emphasis on quality-of-life issues. The Air Force's philosophy of taking care of people can be traced back to Mitchell's statement that "mechanics should be housed and cared for on a scale which is the equivalent of the living conditions of the expert mechanics in civil life."[14] Even though the Air Force now contains more than just pilots and "mechanics," it is still necessary to provide adequate housing in order to attract and retain high quality personnel. As part of their study, the Quality of Life Task Force examined housing conditions throughout the Department of Defense. Their report stated "The Air Force has generally provided the best [family] housing, setting the standard for the Defense Department. . . . The condition of family housing reflects the priority a service gives to quality of life in relation to other competing mission and readiness requirements." The same difference was noted in permanent party enlisted housing: "The Air Force leads the way in providing privacy and amenities, with one person per room a reality for more than 40 percent of its enlisted personnel. This...creates a much better living arrangement for its average single enlisted member than their soldier, sailor or Marine counterparts."[15] A recent article in the *Air Force Times* reported that the Air Force expects to have all single enlisted personnel in private rooms by 2005. The Navy should reach that goal by 2013 and the Army by 2020. The Marines will

38

still have the majority of their personnel in double rooms by 2035.[16] Even when deployed, the Air Force is known for providing the best working and living conditions. Marines supporting the Bosnian no-fly zone from a base in Italy lived in a tent city while Air Force people at the same base were housed in local hotels.[17]

Different Reenlistment Rates

It would be futile to go to the trouble of recruiting the highest mental category of personnel and spending scarce dollars to educate and house them if they were going to leave the service at the first opportunity. However, service reenlistment and retention rates shown in Table 6 and 7 indicate the Air Force is best able to retain a large percentage of trained personnel.

Table 6. Reenlistment Rates

	ARMY	NAVY	USMC	USAF
Total Regular	71.7%	66.9%	42.5%	84.7%
First Term Regular	42.0%	53.6%	19.4%	61.1%
Career Regular	77.0%	78.5%	73.7%	92.6%

Source: Department of Defense, *Selected Manpower Statistics: Fiscal Year 1994,* Washington, D.C.: Government Printing Office, 98-109.

Table 7. Retention Rates

	ARMY	NAVY	USMC	USAF
Total Officers	89%	87%	89%	91%
Total Enlisted	82%	81%	80%	88%
Total Military	83%	82%	81%	89%

Source: Department of Defense, Annual Report to the President and the Congress, Washington D.C.: Government Printing Office, February 1995. Data as of 30 September 1994.

Different Emphasis on History and Tradition

The Air Force culture is not strongly based on tradition. This may simply be a function of being a "young" military service. Unlike the other services that date their institutional beginnings more than two centuries ago and have their origins lost in history, the Air Force has had less than fifty years to develop unique traditions. Conversely, it may reflect the attitude of Billy Mitchell who wrote, "In the development of air power, one has to look ahead and not backward and figure out what is going to happen."[18] General McPeak's attempt to celebrate the Air Force's heritage through an emphasis on squadron lineage was not enthusiastically received because he misread this aspect of Air Force culture. The "Aces" of previous wars are known for their individual achievements, not for the unit in which they served.[19] Technology and the individuals operating or supporting this technology are more important than the temporary units to which they are assigned. Air Force heritage reflects the battle for independence, the belief that air power must be managed differently than land or sea power, and a constant quest for technology advancements.

Different Discipline Trends

Within the Air Force, there are very few life or death situations that call for instantaneous and unquestioning response to orders. Instead, the Air Force seeks to "foster an atmosphere in which people understand the purpose of their work"[20] People are encouraged to ask questions, make suggestions, and use their ingenuity. Although military discipline is still important, a tolerance for questions and individualism is an essential part of the culture.

One would expect this from an organization whose early founder emphasized the role of the individual. Although there is a danger in drawing the wrong conclusion about service cultures simply by looking at statistical charts, the following tables (Table 8 through 11) do clearly show significant differences between the Air Force and the other services. In virtually every case, Air Force rates are either higher or lower than the other three services. It would take a great deal of research to determine if these differences are a function of the quality of personnel or a reflection of different service policies and reporting procedures. For example, Table 9 and Table 10 show there are proportionally more sexual harassment and discrimination complaints in the Air Force than the other services. One can only speculate whether this is because there are more women in the Air Force, because there is more discrimination in the Air Force, because Air Force individuals are more willing to report problems, because Air Force policies enable reporting, or because of some combination of these or other factors.

Table 8. Disciplinary Rates

	ARMY	NAVY	USMC	USAF
Court-martials	2585	2022	1731	1147
Rate/1000	4.8	4.3	9.9	2.7
Non-Judicial Punishment	48,035	29,045	10,265	10,828
Rate/1000	88.7	62.0	58.9	25.4
End Strength	541,383	468,622	174,158	426,327

Source: Martin R. Walker, "An Analysis of Discipline Rates Among Racial/Ethnic Groups in the U.S. Military Fiscal Years 1987-1991," Defense Equal Opportunity Management Institute Director of Research (MU 43343-5; AD-A274-555; 93-18991; 1992).

Table 9. Sexual Harassment Complaints

	ARMY	NAVY	USMC	USAF
Number Filed	649	133	93	724
Number Substantiated	262	93	36	507
Percent Substantiated	40%	70%	39%	70%
Rate Filed/1000	1.1	0.3	0.5	1.6
Total Military Strength	572,423	509,950	178,379	444,351
Total Females	71,328	57,601	7,845	66,732
Percent Female	12.5%	11.3%	4.4%	15.0%

Source: Department of Defense, Annual Report to the President and the Congress, Washington D.C.: Government Printing Office, February 1995. Data as of 30 September 1994.

Table 10. Equal Opportunity Discrimination Complaints

	ARMY	NAVY	USMC	USAF
Number Filed	943	75	38	826
Number Substantiated	181	38	5	357
Percent Substantiated	19%	51%	13%	43%
Rate Filed/1000	1.7	0.2	0.2	1.9
Total Military Strength	572,423	509,950	178,379	444,351
Total Females	71,328	57,601	7,845	66,732
Percent Female	12.5%	11.3%	4.4%	15.0%

Source: Department of Defense, Annual Report to the President and the Congress, Washington D.C.: Government Printing Office, February 1995. Data as of 30 September 1994.

Table 11. Non Standard Discharges

ENLISTED	ARMY	NAVY	USMC	USAF
Early Release/RIF	9,921	8,581	33	10,777
Behavior disorders	904	3,846	204	1,195
Weight Standards	2,392	1,888	43	512
Drugs	895	2,789	793	358
Pregnancy	1,340	638	139	657
Parenthood	1,102	580	17	37
Alcoholism	448	809	120	73
AWOL	199	454	488	16
Homosexuality	181	255	46	255
Perversion	0	74	1	165
OFFICERS				
Early Release/RIF	2,107	860	131	1,193
Behavior disorders	5	0	0	0
Weight standards	0	2	0	2
Drugs	3	0	0	0
Pregnancy	15	0	0	22
Alcoholism	3	0	0	0
Homosexuality	1	5	0	9
Perversion	0	2	0	3
Failure at promotion	198	156	36	70
Poor Performance	30	8	0	10

Source: *Air Fore Times,* 56, no. 27 (5 February 1996): 10. Data as of 30 September 1995.

From the above tables and discussion, one can see that the unique aspects of the Air Force's culture clearly distinguish it from the other services. The data is fully consistent for a forward-looking, technology-based organization that recruits, develops, and seeks to retain high quality individuals to operate and maintain complex technical systems.

Notes

[1] Department of Defense, *Annual Report to the President and the Congress* (Washington, D.C.: Government Printing Office, February 1995), G3-G5.

[2] Sgt Clark, US Army; MMI Steve Wunder, US Navy; MSgt Oliver, USMC; and SSgt Prothro, USAF, Military Recruiters, interviewed by author in Springfield, Ohio, 28 December 1995.

Notes

[3] Charles C. Moskos, *The American Enlisted Man: The Rank and File in Today's Military* (New York: Russell Sage Foundation, 1988), 18.

[4] Recruiter Interviews, 28 December 1995.

[5] G.W. Poindexter, "Don't Compromise Quality" *Air Force Times* 54, no. 50 (18 July 1994): 10.

[6] Category 1 includes recruits who scored in the top 93 percentile. Category II includes recruits in the 65th to 92nd percentile. Category 111A is 50th through 64th; Category IIIB is 31st through 49th; and Category IV is 10th through 30th. The Air Force increased from 80% to 83% of recruits who scored in the top 50 percentile. The Army dropped from 66% to 65%; the Navy dropped from 63% to 61%; and the Marine Corps had the greatest drop from 68% to 63%. Neff Hudson, "Recruiters Meet Goals" *Air Force Times* 56, no. 18 (4 December 1995): 8.

[7] Department of Defense, *Report of the Task Force on Quality of Life (Final)*, (Report prepared by the Defense Science Board to the Secretary of Defense), 16 November, 1995, Chapter 4, 14-16. Online. AOL. Military City Online-Text-Reference.

[8] Ibid.

[9] FM 100-5, *Operations*, June 1993, 2-3.

[10] Army Regulation 623-105, *Officer Evaluation Reporting System,* 31 March 1992.

[11] Recruiter Interviews, 28 Dec 95.

[12] Rick Maze, "Should Careers Lengthen?" *Air Force Times* 56, no. 21 (25 December 1995): 10.

[13] MSgt Schilter Lowe, "Fitness Program, Service Members Healthier Than Ever," *Air Force News Service,* 26 December 1995. Online, AOL. Available HTTP: http://www.dtic.dla.mil/airforcelink/pa/dec95/dec95.html, 6 January 1996.

[14] Mitchell, 176-177.

[15] *Report of the Task Force on Quality of Life*, Chapter 2, 4-6, 23.

[16] Neff Hudson, "Singles Win a Round," *Air Force Times* 56, no. 21 (25 December 1995): 8.

[17] Neff Hudson, "The Good (Air Force) Life," *Air Force Times* 54, no. 33 (21 March 1994): 4.

[18] Mitchell, 20.

[19] "Air Force Magazine's Guide to Aces," *Air Force* 78, no. 5 (May 1995): 64-66.

[20] Gen Ronald R. Fogleman, "Air Force Direction: Team within a Team" *Defense 95* Issue 1, 24-29.

Chapter 5

Culture Problems

From the previous sections, one can see that there are clear reasons why the Air Force developed a distinct technology-based culture and also that many current Air Force programs support this culture. However, "culture" is often blamed for a number of problems within the Air Force. This section will identify a few of these issues and examine some of the cultural origins of these problems.

The Symptoms

A variety of reports and articles have appeared within the past few years alleging problems with the Air Force culture. The report of an Inspector General investigation into General Joseph Ashy's flight from Naples to Colorado Springs indicated that this flight "reflected a culture that apparently lacks adequate cost consciousness in providing services to senior officials," and the attempt by public affairs to cover up the details of the flight was caused by a "culture that places a premium on the protection of senior officers." A panel convened to look further into the public affairs actions reported a "propensity of certain officers to confuse image with mission."[1]

An article in the 9 October 1995 *Los Angeles Times* stated the Air Force had a "cavalier mentality that led to lapses in integrity and accountability." In addition to the

Ashy flight, the article referred to the senior Air Force officer who publicly insulted the president, the B-52 crash at Fairchild, and the Black Hawk helicopter shootdown as further examples of a culture that does not hold senior officials accountable. The Air Force's promotion system was criticized for producing "inbred and self-protective leadership," and "freewheeling" fighter pilots who dominate the service were accused of being too "willing to disregard the rules and behave as they choose."[2] This is an image of the Air Force that is being presented to the American public.

The *Air Force Times* has contained numerous articles concerning efforts by the current Air Force Chief of Staff "to correct some of the problems and change the Air Force culture."[3] Problems are often cited with the promotion system: widespread but unauthorized use of base-level boards to determine promotion recommendations, a secret "top promote" category, the cover up of serious problems with the officer performance rating system used during the 1970s, the use of illegal priority lists for promotions to general officer, and the attempts by Lt Gen Glosson and Brig Gen Shulstand to influence promotion boards.[4] The source of the problem is said to be "an entrenched culture in which the leadership believes it can violate the rules without severe punishment, admission of their mistakes or correction of the consequences of their errors."[5]

The problems are not confined to the promotion system or improper flights by senior officers. Another issue of *Air Force Times* discussed the actions of General Yates in directing members of his command to ignore new rules for the cycle ergometry test. The article stated, "for a commander to defy test rules that have been approved by the Air Force hierarchy is wrong. And for the Air Force hierarchy to ignore such defiance is equally wrong."[6] Yet another article revealed that 58 percent of active duty officers are

asked to draft their own performance reports.[7]   Regardless of whether all of these allegations are true, these articles in the *Air Force Times* are widely read by members of the Air Force. These "stories" become one of the cultural forms of the Air Force.

The Air Force culture is blamed for more than just a lack of integrity and accountability. Prior to writing *The Icarus Syndrome*, Carl Builder met with students and faculty at the Air Command and Staff College. There he heard complaints from students about the promotion system, dead end careers for non-rated officers, and the presumed requirement to have a flag officer as a mentor in order to get a good job. The faculty complained that the students were only interested in their careers and were not concerned about the Air Force.[8] In *The Icarus Syndrome*, Builder states that these and other problems are caused by the lack of an integrating vision and the abandonment of air power theory.

Other Culture Issues

"Project Warrior" was another attempt to change the culture of the Air Force. Although the basic concept of reemphasizing the Air Force's wartime mission was sound, the project was poorly implemented. It was created to overcome two perceived shortcomings: an attitude/identity problem of people who viewed their work as an ordinary job and a lack of knowledge about warfare among Air Force members.[9] In the implementing letter from the Chief of Staff, Project Warrior was described as a "vehicle to encourage increased familiarity with warfighting theories and to heighten appreciation of the flexible and unique contributions of air power."[10] Units were encouraged to form discussion groups and hold regularly scheduled meetings at noontime or in the evenings.

Commanders were to be kept informed but were assumed to be too busy to participate directly.[11] The message this approach sent was that learning about warfare and air power was not as valuable as other things done during duty time. Since then, the project has become little more than the periodic wearing of the field uniform. Since non-rated personnel are frequently reminded that their job is to support the "warfighter," simply wearing the battle dress uniform weekly or monthly will not convince them they are warriors. A recent commentary in *Air Force Times* indicated that specialization and mission isolation had created an atmosphere where it was "hard to think like a warrior when you are not a flyer."[12]

Some policies and procedures seem to be an attempt to make the Air Force's culture more like that of one of the other services. An article in the *Air Force Times* announced that Air Force recruits would begin spending time in the field during basic training. The purpose of this was to "give recruits an early taste of military life" and "enhance a war-fighting atmosphere and spirit in basic training."[13] This type of training would be appropriate if normal military life for Air Force personnel actually required operating in the field; however, most Air Force personnel do their part of "war-fighting" from an office or a fixed base. This training may be fun and even informative, but it will be inconsistent with the Air Force's technology-based culture.

The Causes

Deal and Kennedy state that the characteristics of organizations with cultural problems are a lack of clear values or beliefs, a lack of agreement about which beliefs are most important, fundamentally different beliefs in different parts of the organization,

heroes with destructive or disruptive behaviors, and disorganized or contradictory rituals.[14] If the issues discussed above are really problems with the Air Force culture, it should be possible to identify some of the potential causes based on the theories of organizational culture and the specific factors that shaped the Air Force's technology-based culture.

Lack of Integrating Vision

According to Builder, the Air Force lost its integrating vision because airplane "operators" became enamored with their specific weapons systems and forgot the "ends" for which these systems were to be used. In cultural terms, the operators mistook the artifact of technology (the airplane) for the underlying assumption and developed a subculture that deviated from the common organizational culture. In Builder's theory, the first indication of this occurred when intercontinental missiles were introduced. Although missiles were consistent with the original assumption that technology could bring about a better (cheaper, more lethal, less risky) means of warfare from the third dimension, the strategic bomber pilots who were running the Air Force at that time allegedly felt threatened by a technology that would make their role obsolete. By restricting the senior leadership positions to pilots of manned bombers and by treating missiles as an adjunct responsibility, these pilots undermined the fundamental beliefs and assumptions of the Air Force.

Builder maintains that the second and more significant break occurred when the Vietnam War indicated that the Air Force's concept of strategic bombing was not appropriate in all situations. Because the bomber pilot subculture had interpreted the original assumption to mean that strategic bombing should be used to win wars, they were

49

discredited and lost their positions of dominance. As fighter pilots eventually assumed the senior positions, Builder states that Air Force leadership may have become more focused on the preservation of flying and fliers than on the mission of the institution. Senior officers were rewarded for their ability to successfully manage new aircraft acquisition systems instead of their institution-building skills. Better technology was still sought but without a unifying vision or purpose. Manned aircraft, now manned fighter aircraft, became an end in themselves, and other technological means that could provide a better means to "win the war" were relegated to a secondary role. Whether or not Builder is correct in his theory, the Air Force seems to have fragmented into a series of non-overlapping subcultures.

Subcultures

Although subcultures form normally in most organizations, they can be dysfunctional if they do not support a common organizational culture. Builder refers to these subcultures as "intraservice distinctions" and says they provide "a useful clue to differences among the services and what they think is important and what they are about."[15] Although officers and enlisted personnel belong to different subcultures, the major subcultural groupings depend upon warfighting responsibilities. The Army's primary subcultures consist of the infantry, artillery, and armor branches and all others. According to Builder, even though Army members identify themselves according to their branch, they recognize the interdependence between the branches and thus avoid serious intraservice rivalries.[16] The Navy's subcultures consist of carrier-based fighter aviation, surface, and submarine operations and all others. Although Builder states the Navy has the most elaborate hierarchy between these subcultures, he nevertheless believes that

50

specialists in each of these areas identify themselves first with the Navy and then with their "platforms."[17] The Marine Corps strives to promote a single "every marine a rifleman" culture.[18] The Air Force's primary subcultures consist of pilots and all others, and Builder says that Air Force pilots identify themselves with their aircraft type even more than they do with the Air Force.[19]

A key difference between the Air Force and the other services consists of the number of people in these major subcultures. Almost all Marines and a large percentage of individuals in the Army and Navy belong to one of their "warfighting" subcultures; however, less than four percent of individuals in the Air Force belong to the pilot subculture.[20] Since the majority of individuals are excluded from the "warrior" class, they seek fulfillment in their occupational subcultures: maintenance, civil engineering, communications, space systems operations, and so forth. The desire for occupational specialty badges reflected the need for visible artifacts and identification symbols for these subcultures. However, the Air Force's policy of placing rated officers in charge of non-flying organizations denied recognition of the "esoteric knowledge and expertise" of these occupational subcultures.

A combination of factors have converged to create a sense of occupationalism rather than institutionalism within the Air Force: the lack of a unifying vision, extensive occupational specialization, an emphasis on individual versus group skills, a remote view of war and danger, and the similarity of tasks between the Air Force and the civilian community. An Air Force recruiter has acknowledged that many potential recruits saw the Air Force as being the most similar to civilian life in that they could do an "8 to 5" job and then do what they wanted during their off-duty time.[21] A Marine sergeant said if his daughter

were interested in the military, he would steer her toward the Air Force because "their mentality is more civilian than the other services."[22] Several letters to the *Air Force Times* regarding an Air Force officer who faced disciplinary action for "inappropriate" off-duty attire reflect this occupational attitude. A master sergeant wrote "What my superiors must understand and accept is that when I am off duty, off base and out of uniform, you have no right whatsoever to tell me how I can walk, talk and dress or express myself as long as I am within the limits of social and moral decency." Even a lieutenant colonel expressed the sentiment: "How an officer dresses on off-duty time is really no one's business. If it was, there would be a regulation or instruction regarding off-duty dress and appearance."[23] The pervasiveness that has distinguished the military from civilian occupations is not as prevalent in the Air Force as the other services.

Leadership Perspectives

The Air Force's technology-based culture promotes a different emphasis on leadership than the other services. Army and Marine officers are exposed to different levels of responsibility as they progress in rank through commanding platoons, companies, divisions, etc. They gain direct experience leading the soldiers under their command. US Army Field Manual 100-5 states, "the most essential dynamic of combat power is competent and confident officer and noncommissioned officer leadership" and "discipline begins with trained leaders whose personal example, standard of conduct, concern for soldiers and loyalty to subordinates create well-disciplined units and proper conduct of operations on the battlefield."[24] A brief comparison of Army and Air Force basic doctrine clearly indicates the different leadership emphasis between these two services: leadership is stressed in Army basic doctrine; it is barely mentioned in AFM 1-1.[25] Unrestricted naval

line officers are rotated through the different key positions aboard ships and gain both leadership experience and a broad understanding of the diverse functions on board. Furthermore, Army, Navy, and Marine officers "lead" their troops into battle, whether in the field or onboard ship. They must live and operate together for long periods of time in possibly arduous conditions. This generates the need for well established formal relationships between officers and enlisted personnel.

Conversely, the Air Force's technology-based culture does not generate the same leadership philosophy. Pilots are expected to have expert technical skills, but most do not have the opportunity to lead large groups of people until they become somewhat senior in rank.[26] They may be responsible for their own crew or other pilots within their squadrons but not for large numbers of enlisted personnel. Until recently, few flying squadron commanders were responsible for more than just a handful of enlisted personnel. Although General Creech may insist that he learned a lot about leadership as a flight leader in Korea and as a wingman on the Thunderbirds, this is not the same type of leadership as required by a company commander or a ship's captain.[27] The same differences apply to many Air Force officers in other technical fields such as acquisition, space and missiles, intelligence, weather, or the medical and legal fields. Less than 20 percent of Air Force officers are exposed to "traditional" leadership positions.[28] Because pilots currently fill most senior positions in the Air Force, their experiences and views of leadership are different both from their contemporaries in the other services and from Air Force officers who have been exposed to the more traditional leadership positions. Furthermore, since technology can and must be "managed," management skills have received more attention than leadership skills. Moreover, entirely different leadership skills are needed to lead

organizations of diverse, well-educated personnel who perform technical or individual tasks than are required to lead large semi-homogeneous groups into battle. It may be that the Air Force was attracted to the Total Quality Management movement because of its emphasis on management by data (metrics), scientific management methods, and individual responsibility without fully understanding the leadership requirements to make it work.

Additionally, there is a different relationship between officers and enlisted personnel within the Air Force. Pilots may develop a close rapport with their enlisted crews, and many officers work side-by-side with enlisted personnel in small offices; however, they do not "lead" them in the same sense that an Army commander leads his or her troops. Furthermore, Air Force officers are seldom required to live and operate in direct proximity to enlisted personnel. During both war and peacetime, when the sortie is complete or the duty shift is over, most Air Force officers and enlisted personnel go their separate ways. The recent fraternization incidents in the Air Force may be a result of the different association between officers and enlisted personnel. An article in a recent *Air Force Times* reported, "The problem for the Air Force has been that . . . its customs against officer-enlisted relationships never has been strong as in the other older services."[29]

During the late 1980s, the Air Force Chief of Staff directed development of an Officer Professional Development program. The program was developed but never implemented and disappeared after the arrival of a new Chief of Staff.[30] A professional development program for lieutenants created a few years earlier suffered the same fate. Although "leadership" is taught in all Air Force professional military education courses, it comprises a relatively small percentage of the total academic curriculum. The current Secretary of

the Air Force and Chief of Staff recently implemented a new series of steps to "ensure the best possible leaders for the future Air Force" by changing the process of selecting, educating, and holding commanders accountable.[31] How well this new initiative will work will depend upon how closely it is attuned to the existing culture of the Air Force and whether the existing Air Force culture can be aligned to match its goals.

Integrity

Chapter II discussed the impact of stories, heroes, and founders in developing an organization's culture. Professional military education at all levels teaches the accomplishments of men like Mitchell, Arnold, and Spaatz in creating an independent Air Force. They are praised for their courage in going against conventional wisdom in order to see their vision enacted. Yet, they were also known for ignoring regulations and policies whenever they thought it necessary. Their lapses are overlooked because of the results they achieved. Since they were known as nonconformists, it is reasonable to assume that when Arnold and Spaatz reached their senior positions, they also supported other "mavericks." Thus, Air Force stories seem to indicate that it is sometimes completely acceptable, even necessary, to ignore regulations to achieve some "greater good."

This same contradictory message continues with later Air Force leaders. In Edgar F. Puryear's study of Air Force character and leadership, *Stars in Flight,* Curtis LeMay is described as a man of great character who "always did what he thought he ought to do, *right or wrong.*" Nevertheless, he is praised a few pages later for his great integrity.[32] Although no one is ever praised for ignoring regulations for personal advancement, the stories imply that regulations don't apply to individuals of courage, character, and vision.

Air Force leaders, at all levels, like to think they have as much courage and character and sense of mission as men like Mitchell or LeMay. With these individuals as role models, is it any wonder why men like Gen Yates feel they have the right to disregard rules they consider to be invalid?

A culture that teaches it is all right for some individuals to ignore some regulations some of the time soon creates an organization in which regulations are assumed to apply only to some individuals. A culture that excuses lapses of integrity by senior personnel because of their accomplishments in other areas teaches that results are more important than integrity. The current Air Force problems with integrity and accountability should not surprise anyone who understands how the Air Force's culture was formed and is perpetuated. On the other hand, the actions taken by General Fogleman to increase accountability may generate new "stories" and thus modify this aspect of the Air Force culture. Conversely, if these efforts to increase accountability are not completely integrated into the total Air Force culture, they may lead to timidity and a loss of individual initiative.[33]

The previous two chapters have examined various aspects of the Air Force's culture. The Air Force's culture is coherent and consistent with being a technology-based culture, but the culture is poorly understood and lacks a unifying sense of purpose. Because of this lack of understanding, leaders have been unable to overcome the diverse forces that promoted fragmentation and resulted in inconsistent words and behaviors.

Notes

[1] Tony Capaccio, "USAF 'Culture' Of Protecting Senior Brass Needs Overhaul," *Defense Week* 16, no. 36 (11 September 1995): 1.

Notes

[2] Art Pine, "Freewheeling AF Hitting Turbulence," *Los Angeles Times,* 9 October 1995.

[3] Andrew Compart, "In this Battle, Selection Boards are Challenged," *Air Force Times* 55, no. 34 (6 May 1995): 12-13.

[4] Over the past 15 months, there have been so many articles in the *Air Force Times* citing problems with the promotion system that it is impractical to list all of them. Among a few of these articles are: Terry Stevens, " The Promotion Debate: Another View," 26 December 1994; Editorial, "Promotions Lack Moral Authority," 8 May 1995; Andrew Compart, "In This Battle, the Selection Boards are Challenged," 5 June 1995; Carl V. Lyday, "How to Fix the Promotion System," 20 February 1995; and Neff Hudson, "Study Reveals Promotion Disparities," *Air Force Times* 4 December 1995. Online. AOL. 16 March 1996.

[5] Editorial, "Taking Aim," *Air Force Times* 55, no. 24 (16 January 1995): 12-13.

[6] Editorial, "Adopt One Standard," *Air Force Times* 19 June 1995. Online. AOL. 12 January 1996.

[7] Andrew Compart, "Rating Yourself? Survey: Many Officers Draft Own Evaluations," *Air Force Times* 56, no.12 (23 October 1995): 3.

[8] Builder, *The Icarus Syndrome,* xiv-xvi.

[9] Project Warrior Professional Studies Support Booklet, Headquarters USAF, Doctrine and Concepts Division, 25 April 1983, 1.

[10] Gen Lew Allen, Air Force Chief of Staff to ALMAJCOM/SOA/CC, letter, subject: Project Warrior, 5 February 1982.

[11] Project Warrior Professional Studies Support Booklet, 3.

[12] Dennis M. Drew, "Start Thinking Like a Warrior," *Air Force Times* 56, no. 33 (15 March 1996): 70.

[13] Bryant Jordon, "Getting Back To Basics: Broader Recruit Training To Include More Time In The Field," *Air Force Times* 56, no. 12 (23 October 1995): 4.

[14] Deal and Kennedy, 135-136.

[15] Builder, *The Masks of War*, 25.

[16] Ibid., 27.

[17] Ibid., 25-26.

[18] Gen Carl E. Mundy, "Every Marine a Rifleman," *Marine Corps Gazette* 77, no. 1 (January 1993): 12-13.

[19] Ibid., 26.

[20] As of 30 September 1995, there were 15,380 pilots and 5,870 navigators in the Air Force out of a total active duty strength of 396,300. This calculates to 3.8% pilots and 5.4% rated officers. If only officers are considered, there were 19.6% pilots and 27% rated officers in a total officer strength of 78,400. "Air Force Demographics," 30 September 1995. Online. AOL. Available HTTP: http://www.mpc.af.mil/publicaf/main.htm, 15 November 1995.

[21] Interview with SSgt Prothro, USAF recruiter, Springfield, Ohio, 28 December 1995.

Notes

[22] Rick Maze, "All in the Family? Many children are being told not to follow their parents," 25 September 1995, *Air Force Times* 25 September 1995. Online. AOL. 15 March 1996.

[23] Letters to the Editor, *Air Force Times* 56, no 4 (28 August 1995): 30-31.

[24] FM 100-5, *Operations*, 2-11, 2-3.

[25] Although AFM 1-1 has several references to enemy leadership, Air Force leadership is only mentioned once, "Painstaking preparation is required to sustain the quality of Air Force leadership in peace and war," AFM 1-1 briefly discusses the role of the commander and the requirement to provide experience and professional development to subordinates. Professional development requires only "a balance of training, education, experience, and personal effort." AFM 1-1, 18-19.

[26] Banked officers and officers filling rated supplement positions are exceptions. Pilots in staff positions may lead a office or perhaps a branch.

[27] Creech, 78-83.

[28] The career field that have the majority of "traditional" leadership positions are aircraft maintenance, supply, transportation, security police, civil engineering, communications/computer, personnel, services, and information management. Air Force demographics as of 31 December 1995 show that only 16,444 officers out of a total of 77,329 are in these logistics and support career fields. "Air Force Demographics as of 31 December 1995," Online. AOL. Available HTTP. http://www.afpc.mil/publicaf/main. htm. 30 January 1996.

[29] Andrew Compart, "Fraternization Rules are Old and Confusing," *Air Force Times* 56, no. 17 (27 November 1995): 14.

[30] Terry Stevens, "How to Strengthen the Officer Cops," *Air Force Times* 30 October 1995. Online. AOL. 15 February 1996.

[31] Sheila Widnall, "Building Leadership—Step by Step," *Air Force Times* 56, no. 31 (4 March 1996): 29.

[32] Puryear, 232-234.

[33] Patrick Pexton, "The One Mistake Air Force?" and "Service Chiefs are Aware of Repercussions," *Air Force Times* 56, no. 31 (4 March 1996): 12-14.

Chapter 6

Implications for the Future

To determine whether the current Air Force culture will support or hinder operations in the future, one must look at the external environment to see the types of changes and challenges the Air Force will encounter. Peter Schwartz (*The Art of the Long View*), Alvin and Heidi Toffler (*Future Shock, The Third Wave, War and Anti-War*) and John Petersen (*The Road to 2015*) have identified common trends in the external environment.[1] The Air Force's culture will have a major influence on the manner and the success of the Air Force in responding to these future trends. Although entire books have been written about each of these subjects, the relevant changes can be briefly summarized as follows:

Future Trends

US Society

Within the United States, the changing attitudes of the younger generation are battling with the mores and values of conservative coalitions. Several books have been written describing profound changes in the attitudes of today's American youth. Many have grown up in broken homes or have been greatly influenced by rapid changes in technology. Among other labels, members of this generation are referred to as "Generation X," the "13th Generation" (the 13th generation since the founding of the

United States), or "Twentysomethings." In *Twentysomething: Managing and Motivating Today's New Workforce*, Bradford and Raines describe this new generation as being self-oriented, cynical, and materialistic. Furthermore, they are very independent and slow to commit; they don't bow to authority; they want to "participate in decisions that affect them," and "expect to be treated as colleagues."[2] Regardless of whether these characterizations are accurate, future military members will be influenced by the broader culture of American society. Additionally, domestic issues such as crime, education, health care, and employment opportunities are major concerns. Niche marketing is replacing mass production, and rapidly changing information systems are causing work environments to become increasingly decentralized. Homosexuals, women, and minority groups are insisting on a more equal role in American society, and electronic media permit instantaneous and widespread dissemination of news events. Demographically, the pool of military-age recruits is shrinking, and fewer individuals have direct experience or direct exposure with the military. On the other hand, American society in general and the younger generation in particular are comfortable with using highly technical systems.

Technology Changes

Technological advances are occurring at an ever-accelerating pace. Changes in computers and advanced communications systems have created a global information network, and the Tofflers suggest that information and knowledge will be the primary commodity of the future. "Virtual reality" is a reality, and research is ongoing to harness breakthroughs in biotechnology and new energy systems. Space-based technologies have completely revolutionized communications, meteorology, navigation, and remote sensing systems.

Economic & Political Influences

The increasing interdependence of the global economy and the growth of regional trading blocs have caused a reassessment of international priorities, and concern for the national deficit and national debt are driving military budgets downward.

International Influences

The collapse of the Soviet Union completely changed the dynamics of world power and brought about changes in the influence of international, multinational, transnational, and nongovernmental organizations. Regional conflicts, global environmental issues, the widespread availability of weapons, the proliferation of weapons of mass destruction, and the migration of populations from underdeveloped nations have created new security concerns that receive emphasis by worldwide media coverage. These changes place an increasing demand on military "operations other than war."

Military Trends

These external changes have resulted in massive downsizing, base closures, civilianization efforts, and a reduction in forward basing. They have been accompanied by an increasing dependence on information systems and a quest for technological solutions to make it possible to do "more with less." Joint and combined operations are seen as the non-technical means of maintaining military effectiveness and efficiency in a changing environment. In spite of downsizing, the operations tempo continues to increase as military units are tasked with more diverse missions and tasks.

Air Force Response

In chapter 2, it was stated that "the effectiveness of an organization depends upon translating the values and beliefs held by members of an organization into consistent policies and practices compatible with the mission and external environment of the organization." From the above trends it can be seen that the external environment will require using a smaller, more diverse workforce to accomplish more non-traditional tasks using increasingly highly technical systems. How well the Air Force will be able to do this will depend on how well senior leaders understand the existing culture and then use or shape it as required.

The Air Force culture may be ideally suited for integrating the new workforce. The new generation's independence, diversity, rejection of arbitrary authority, and desire to participate in decisions as colleagues may be easily incorporated into the Air Force's tolerance for questions, emphasis on individual accomplishments, less pervasive atmosphere, and more collaborative relationship between officers and enlisted personnel. The Air Force's technology-based culture may also closely match the interests and aspirations of the technologically literate new generation. The widespread availability of information and decentralized information systems may be compatible with the Air Force's concept of "decentralized execution." Furthermore, the Air Force's emphasis on education and quality of life initiatives and de-emphasis on physical toughness and group physical training may appeal to a self-oriented and materialistic generation. The challenge for the Air Force will be to adopt a leadership style that can harness these changing values to mission accomplishment. The espoused Quality Air Force philosophy of "a leadership

commitment and operating style that inspires trust, teamwork and continuous improvement everywhere in the Air Force"[3] could be the means to achieve this.

There may be alternate future paths depending on how the Air Force interprets its basic underlying assumptions. If the Air Force chooses to remain focused on airplanes and considers the aircraft operators as the only warfighters, then much of the remaining 96 percent of the workforce could be civilianized without an adverse impact on capability. This would be compatible with the Air Force's ongoing close working relationship with civilian industries. While continuing to take advantage of technological advances, a much smaller force could support deployed operations. In order to make personnel policies consistent with this airplane-centered assumption, officers in charge of the support force could be limited duty officers who would not eligible for senior command positions or need to be trained in strategy or warfighting concepts. Space and missile systems would no longer be a part of the Air Force, and the reengineered Air Force could concentrate on making improvements to its primary aircraft mission.

Conversely, if the Air Force chooses to accept the assumption that technology can lead to a newer, different, and better means to accomplish national security objectives, then it would need to create an organization that was more inclusive of all people who directly or indirectly support these technological systems. Information warfare, unmanned aerial vehicles, and space and missile systems would assume positions of equal importance with manned aircraft. The Air Force would need to redefine the concepts of "warrior" and "warfighting" to make them compatible with both the external challenges and the internal composition of the force.

Regardless of the route the Air Force travels in the future, senior leaders must understand the role that culture plays in determining the eventual success of the organization. A wise leader must recognize aspects of the existing culture that support the vision of the future and know how to shape those cultural beliefs that do not. An understanding of the Air Force culture will enable senior leaders to effectively lead the Air Force into the future.

Notes

[1] John L. Petersen, *The Road to 2015: Profiles of the Future* (Corte Madera, Calif.: Waite Group Press, 1994); Peter Schwartz, *The Art of the Long View: Planning for the Future in an Uncertain World* (New York: Doubleday Dell, 1991); and Alvin and Heidi Toffler, *Future Shock.* (New York: Bantam, 1970); T*he Third Wave* (New York: Bantam, 1980); and *War and Anti-War: Survival at the Dawn of the 21st Century* (Boston, Mass: Little Brown and Company, 1993).

[2] Lawrence J. Bradford and Claire Raines, *Twentysomething*, Soundview Executive Book Summaries, Bristol, VT, vol. 14, No 5, Part 1, May 1992.

Chapter 7

Conclusion

An understanding of organizational culture is the first prerequisite to understanding the Air Force's culture. With this understanding, one can see that the Air Force's current technology-based culture is a natural outgrowth of its broader enveloping cultures, its mission, and its historical origins based on the ideas of its founders. Technology gave birth to the Air Force, and airmen believed that this technology made possible a completely new and better means of conducting warfare. Unlike the other services, proper application of this technology depended upon the actions of the individual and mandated totally different organizational structures and personnel requirements.

Evidence of the Air Force's technology-based culture can be clearly seen by examining some of the differences between the Air Force and the other services. This culture influences the reasons people choose to join the Air Force, determines the percentage of personnel required at different grade levels, and results in the different emphasis the Air Force places on mental and physical skills. It is also reflected in the Air Force's emphasis on Quality-Of-Life programs to retain highly trained and educated personnel. The Air Force's lack of emphasis on history and tradition may reflect a culture influenced by the advice of Billy Mitchell to "look ahead and not backward." Furthermore, the effects of Air Force's culture are also evident in the different disciplinary

65

rates in the Air Force as compared to the other services. This data is fully consistent for a forward-looking technology-based organization that recruits, develops, and seeks to retain high quality individuals to operate and maintain complex technical systems.

Most programs in the Air Force are consistent with a technology-based ideology, but problems arise because of the failure to recognize the implications and consequences of this culture. There are many elements of this culture that lead to occupationalism and fragmenting into independent subcultures, but current leadership paths do not promote an understanding of the means to overcome these divisive forces. The failure to understand and clearly articulate the underlying beliefs, values, and assumptions inherent in the Air Force's culture have resulted in the lack of an integrating vision throughout the service. Furthermore, many of the Air Force's current integrity "problems" may originate in the characteristics that are emphasized about Air Force "heroes."

Nevertheless, most attitudes, values, goals, and practices of the Air Force could be extremely well suited to the changing demands of the future. If Air Force leaders can adapt a leadership style and philosophy that harnesses the strengths of its technology-based culture and its emphasis on individual accomplishments, they can shape a smaller, more technologically advanced force that can cope with the revolutionary changes occurring throughout the world. The form that this new force will take will depend upon how the Air Force chooses to interpret its basic underlying assumptions.

The purpose of this paper has been simply to provide a framework for understanding the Air Force's rich and distinct culture. An understanding of the Air Force's culture can explain many of its current beliefs and actions, and senior leaders should understand the role that culture plays in determining the eventual success of the organization. More

importantly, an understanding of the Air Force's culture can enable senior leaders to know

how to lead it into the future.

Bibliography

Books

Arnold, Lieutenant Gen H[enry] H. and Eaker, Brig Gen Ira C. *Army Flyer.* New York: Harper & Brothers Publishers, 1942.

Bolman, Lee G. and Deal, Terrance E. *Reframing Organizations—Artistry, Choice, and Leadership.* San Francisco, Calif.: Jossey-Bass Publishers, 1991.

Builder, Carl H. *The Masks of War: American Military Styles in Strategy and Analysis.* Baltimore, Md.: Johns Hopkins University Press, 1989.

————. *The Icarus Syndrome: The Role of Air Power Theory in the Evolution and Fate of the U.S. Air Force.* New Brunswick: Transaction Publishers, 1994.

Clausewitz, Carl von. *On War.* ed. and trans. Michael Howard and Peter Paret. Princeton, N.J.: Princeton University Press, 1976.

Copp, DeWitt S. *A Few Great Captains: The Men and Events That Shaped the Development of U.S. Air Power.* Garden City, NY.: Doubleday & Company, Inc., 1980.

Creech, Bill. *The Five Pillars of TQM: How to Make Total Quality Management Work For You.* New York: Truman Talley Books, 1994.

Deal, Terrence E. and Kennedy, Allen A. *Corporate Cultures: The Rites and Rituals of Corporate Life.* Reading, Mass.: Addison-Wesley Publishing Company, Inc., 1982.

Denison, Daniel R. *Corporate Culture and Organizational Effectiveness.* New York: John Wiley & Sons, 1990.

Department of Defense. *The Armed Forces Officer.* Washington, D.C.: Government Printing Officer, 1950.

Drennan, David. *Transforming Company Culture: Getting Your Company from Where You Are Now to Where You Want To Be.* London: McGraw-Hill Book Company, 1992.

Edmonds, Martin. *Armed Services and Society.* Boulder, Colo.: Westview Press, 1990.

Frost, Peter J.; Moore, Larry F.; Louis, Reis, Meryl; Lundberg, Craig C.; and Martin, Joanne. *Organizational Culture.* Beverly Hills, Calif.: Sage Publications, 1985.

Futrell, Robert Frank. *Ideas, Concepts, and Doctrine: Basic Thinking in the United States Air Force, 1907-1960.* vol. 1. Maxwell AFB, Ala.: Air University Press, 1989.

Gabriel, Richard A. and Metz, Karen S. *A Short History of War: The Evolution of Warfare and Weapons.* Carlisle Barracks, Penn.: Strategic Studies Institute, 30 June 1992.

Gabriel, Richard A. and Savage, Paul L. *Crisis in Command: Mismanagement in the Army.* New York: Hill and Wang, 1978.

Hallion, Richard P. *Storm over Iraq: Air Power and the Gulf War.* Washington D.C.: Smithsonian Institution Press, 1992.

Holmes, MSgt Susan. *The Quality Approach.* 2nd ed. Maxwell AFB, Ala.: Air Force Quality Institute, September 1994.

Huge, Ernest C. and Vasily, Gerald. "Leading Cultural Change: Developing Vision and Change Strategy." in Bailey, Elizabeth A. et al. eds. *Senior Leadership in the Quality Air Force.* 4th ed. (Maxwell AFB, Ala.: Air University, September 1993, 199-203.

Huntington, Samuel P. *The Soldier and the State: The Theory and Politics of Civil-Military Relations.* 11th ed. Cambridge, Mass.: Belknap Press, 1957.

Janowitz, Morris. *The Professional Soldier: A Social and Political Portrait.* Glencoe, Ill.: The Free Press, 1960.

Keston, Joan B. "Dimensions of Excellence: Changing Organizational Culture." in Bailey, Elizabeth A. et al. eds. *Senior Leadership in the Quality Air Force.* 4th ed. Maxwell AFB, Ala.: Air University, September 1993, 153-157.

Martin, Joanne. *Cultures in Organizations: Three Perspectives.* New York: Oxford University Press, 1992.

McPeak, Gen Merrill A. *Selected Works 1990-1994.* Maxwell AFB, Ala.: Air University Press, August 1995.

Merriam-Webster's Collegiate Dictionary. 10th ed. (1993).

Moskos, Charles C. *The American Enlisted Man: The Rank and File in Today's Military.* New York: Russell Sage Foundation, 1988.

Moskos, Charles C. and Wood, Frank R. eds. *The Military: More Than Just a Job?* Washington D.C.: Pergamon-Brassey's International Defense Publishers, 1988.

Mitchell, William. *Winged Defense: The Development and Possibilities of Modern Air Power—Economic and Military.* New York: Dover Publications, Inc., 1988.

Navy League of the United States. *The Almanac of Seapower 1995.* Arlington, Va.: Navy League of the United States, 1995

Ott, J. Steven. *The Organizational Culture Perspective.* Chicago, Ill.: The Dorsey Press, 1989.

Ouchi, William G. *Theory Z: How American Business can meet the Japanese Challenge.* New York: Avon Books, 1981.

Pepper, Gerald L. *Communicating in Organizations: A Cultural Approach.* New York: McGraw-Hill, Inc., 1995.

Peters, Thomas J. and Waterman, Robert H. Jr. *In Search of Excellence: Lessons from America's Best-Run Companies.* New York: Warner Books, 1981.

Puryear, Edgar F. Jr. *Stars in Flight: A Study in Air Force Character and Leadership.* Novato, Calif.: Presidio Press, 1981.

Petersen, John L. *The Road to 2015: Profiles of the Future.* Corte Madera, Calif.: Waite Group Press, 1994.

Pritchett, Price and Pound, Ron. *High-Velocity Culture Change: A Handbook for Mangers.* Dallas, Tex.: Pritchett Publishing Company, 1993.

Sackmann, Sonja. *Cultural Knowledge in Organizations: Exploring the Collective Mind.* Newbury Park, Calif.: Sage Publications, 1991.

Schlegel, Maj Michael R. "TQM and Continuous Process Improvement: Can We Make It Work?" in Bailey, Elizabeth A. et al. eds. *Senior Leadership in the Quality Air Force.* 4th ed. Maxwell AFB, Ala.: Air University, September 1993, 322-324.

Schwartz, Peter. *The Art of the Long View: Planning for the Future in an Uncertain World.* New York: Doubleday Dell, 1991.

Shein, Edgar H. *Organizational Culture and Leadership: A Dynamic View.* San Francisco, Calif.: Jossey-Bass Publishers, 1985.

Tilford, Earl H. Jr. *Setup: What the Air Force Did in Vietnam and Why.* Maxwell AFB, Ala.: Air University Press, 1991.

Toffler, Alvin and Heidi. *Future Shock.* New York: Bantam, 1970.

————. T*he Third Wave.* New York: Bantam, 1980.

————. *War and Anti-War: Survival at the Dawn of the 21st Century.* Boston, Mass: Little Brown and Company, 1993.

Trice, Harrison M. *Occupational Subcultures in the Workplace.* Ithaca, NY: ILR Press, 1993.

Thucydides. *The Peloponnesian War* (The Crawley Translation) New York: The Modern Library, 1982.

Ward, Michael. *Why Your Corporate Culture Change Isn't Working and What To Do About It.* Hampshire, England: Glower Publishing Limited, 1994.

Journals, Periodicals, And Newspaper Items

"Adopt One Standard." *Air Force Times* 55, no. 28 (19 June 1995): 12-13.

"Air Force Magazine Guide to Aces." *Air Force* 78, no. 5 (May 1995): 64-68.

All Hands: 1995 Owner's and Operator's Manual. no. 933 (January 1995).

Ballweg, John A. "Trends in Substance Use by U.S. Military Personnel." *Armed Forces & Society.* vol. 17, no. 4 (Summer 1991): 601-618.

Boorda, Admiral J. M. "An Enduring Vision of Naval Contribution." *Defense 95,* Issue 1, 16-20.

Boles, Gen Billy J. "Promotions, Evaluations, and Reality." *Air Force Times.* 17 April 1995. Online. AOL. 16 March 1996.

Bradford, Lawrence J. and Raines, Claire. *Twentysomething.* Soundview Executive Book Summaries, Bristol, Vt., vol. 14, no. 5, Part 1 (May 1992).

Butler, John Sibley and Johnson, Margaret A. "An Overview of the Relationships Between Demographic Characteristics of Americans and Their Attitudes Toward Military Issues." *Armed Forces & Society.* vol. 19, no. 2 (Summer 1991): 273-291.

Canby, Steven L. "Roles, Missions, and JTFs: Unintended Consequences." *Joint Forces Quarterly,* vol. 6 (Autumn/Winter 1994-95): 68-75.

Capaccio, Tony. "USAF 'Culture' Of Protecting Senior Brass Needs Overhaul." Defense Week, vol. 16, no. 36 (11 September 1995): 1.

Cerjan, Paul G. "Service Identities and Joint Culture." *Joint Forces Quarterly,* vol. 6 (Autumn/Winter 1994-95): 36-37.

Compart, Andrew. "A 4th Officer Rating? The Fairness of 'Top Promote' Category is Questioned." *Air Force Times.* 20 February 1995. Online. AOL. 16 March 1996.

————. "Will Congress Launch Hearings? At Issue: Whether Changes in Promotion Evaluations for Officers Will Go Far Enough." *Air Force Times.* 20 March 1995. Online. AOL. 16 March 1996.

————. "Officer System Will Undergo Major Changes." *Air Force Times.* 27 March 1995. Online. AOL. 16 March 1996.

————. "Will the System Ever Be Fixed? For Years, the Service Has Sought to Correct Flaws and Unfairness." *Air Force Times.* 10 April 1995. Online. AOL. 16 March 1996.

————. "In This Battle, the Selection Boards are Challenged," and "It's a Perfect Match: Ex-Foes Join Forces against Selection Board System." *Air Force Times.* 5 June 1995. Online. AOL. 16 March 1996.

————. "Rating Yourself? Survey: Many Officers Draft Own Evaluations." *Air Force Times* 56, no. 12 (23 October 1995).

————. "Fraternization Rules are Old and Confusing." *Air Force Times* 56, no. 17 (27 November 1995): 13-14.

Compart, Andrew and Poindexter, G.W. "Taking Aim/The System is the Target/The Chief is the Marksman." *Air Force Times.* 16 January 1995. Online. AOL. 3 January 1996

Drew, Dennis M. "Start Thinking Like a Warrior." *Air Force Times* 56, no. 33 (15 March 1996): 70.

Dunivin, Karen O. "Military Culture: Change and Continuity." *Armed Forces & Society.* vol. 20, no. 4 (Summer 1994): 531-547.

Fogleman, Gen Ronald R. "Air Force Direction: Team within a Team." *Defense 95,* Issue 1, 24-29.

Gorman, Linda and Thomas, George W. "General Intellectual Achievement, Enlistment Intentions, and Racial Representativeness in the U.S. Military." *Armed Forces & Society.* vol. 19, no. 14 (Summer 1993): 611-624.

Gray, Colin S. "The Limits of Seapower: Joint Warfare and Unity of Conflict." *Joint Forces Quarterly,* vol. 6 (Autumn/Winter 1994-95): 52-61.

Greenwood, Col John E. Editorial. "Preserving the Culture of the Corps." *Marine Corps Gazette,* vol. 79, no. 6 (June 1995): 2.

Harries-Jenkins, Gwyn and Moskos, Charles C. Jr. *Armed Forces and Society.* vol. 29, no. 3, London: Sage Publications, Winter 1981.

Hooker, Richard D. Jr. "America's Two Armies." *Joint Forces Quarterly,* vol. 6 (Autumn/Winter 1994-95): 38-46.

Hudson, Neff. "The Good (Air Force) Life." *Air Force Times* 54, no. 33 (21 March 1994): 4.

————. "Recruiters Meet Goals." and "Study Reveals Promotion Disparities." *Air Force Times* 56, no. 18 (4 December 1995).

————. "Singles Win a Round." *Air Force Times* 56, no. 21 (25 December 1995): 8.

Jordan, Bryant. "Getting Back to Basics: Broader Recruit Training To Include More Time In The Field." *Air Force Times* 56, no. 12 (23 October 1995).

Letters to the Editor. *Air Force Times* 56, no. 4 (28 August 1995): 30-31.

Linn, Thomas C. and Neimeyer, C. P. "Once and Future Marines." *Joint Forces Quarterly,* vol. 6 (Autumn/Winter 1994-95): 47-51.

Lowe, MSgt Schilter. "Fitness Program, Service Members Healthier Than Ever." *Air Force News Service.* 26 December 1995. Online. AOL. Available HTTP: http://www.dtic.dla.mil/airforcelink/pa/dec95/dec95.html. 6 January 1996.

Lyday, Carl V. "How to Fix the Promotion System." *Air Force Times.* 20 February 1995. Online. AOL. 16 March 1996.

Mariner, Rosemary Bryant "A Soldier is a Soldier." *Joint Forces Quarterly,* vol. 3 (Winter 1993-94): 54-61.

Marines. vol. 24, no. 1 (January 1995).

Maze, Rick. "All in the Family? Many children are being told not to follow their parents." *Air Force Times.* 25 September 1995. Online. AOL. 15 March 1996.

—. "Should Careers Lengthen?" *Air Force Times* 56, no. 21 (25 December 1995): 10.

McPeak, Gen Merrill A. "To Protect Our Heritage." *Air Power History* 40, no. 4 (Winter 1993).

Mundy, Gen Carl E. Jr. "Flexible, Fast, Effective Forces: Call Out the Marines." *Defense 95,* Issue 1, 21-23.

—. "Reflections on the Corps." and "Every Marine a Rifleman." *Marine Corps Gazette,* vol. 77, no. 1 (January 1993): 11-13.

—. "Naval Expeditionary Forces: Stepping Lightly." *Marine Corps Gazette,* vol. 77, no. 2 (February 1993): 14-15.

—. "What Is It That Makes Marines?" *Marine Corps Gazette,* vol. 77, no. 3 (March 1993): 14-15.

—. "Paradox of the Corps: '. . .such other duties as the President may direct'." *Marine Corps Gazette,* vol. 77, no. 4 (April 1993): 16-18.

—. "Ships and Marines: at the Tip of the Spear." *Marine Corps Gazette,* vol. 77, no. 5 (May 1993): 22-24.

—. "Enabling America's Global Reach." *Marine Corps Gazette,* vol. 77, no. 6 (June 1993): 14-15.

—. "Dial 9-1-1 for Marines: One Call Gets it All." *Marine Corps Gazette,* vol. 77, no. 7 (July 1993): 12-13.

Pexton, Patrick. "New Look at Drug Survey Reveals Some Surprises." *Air Force Times* 56, no. 17 (27 November 1995): 18.

—. "The One Mistake Air Force?" and "Service Chiefs are Aware of Repercussions." *Air Force Times* 56, no. 31 (4 March 1996): 12-14.

Pine, Art. "Freewheeling AF Hitting Turbulence." *Los Angeles Times,* 9 October 1995.

Poindexter, G.W. "Troubled System Faces Study." *Air Force Times.* 2 January 1995. Online. AOL. 16 March 1996.

—. "Don't Compromise Quality." *Air Force Times* 54, no. 50 (18 July 1994): 10.

"Promotions Lack Moral Authority." *Air Force Times.* 8 May 1995. Online. AOL. 16 March 1996.

Ricks, Thomas E. "Separation Anxiety: 'New' Marines Illustrate Growing Gap Between Military and Society." *The Wall Street Journal,* 27 July 1995.

Sorensen, Henning. "New Perspectives on the Military Profession: The I/O Model and Esprit de Corps Reevaluated." *Armed Forces & Society.* vol. 20, no. 4 (Summer 1994): 599-617.

Stevens, Terry. " The Promotion Debate: Another View." *Air Force Times.* 26 December 1994. Online. AOL. 16 March 1996.

————. "How to Strengthen the Officer Cops." *Air Force Times.* 30 October 1995. Online. AOL. 15 February 1996.

Sullivan, Gen Gordon R. "America's Army: Strategic Force for Today and Tomorrow." *Defense 95,* Issue 1, 7-15.

"Taking Aim." *Air Force Times* 55, no. 24 (16 January 1995).

Trainor, Bernard E. "Jointness, Service Culture, and the Gulf War." *Joint Forces Quarterly*, vol. 3 (Winter 1993-94): 71-74.

Vlahos, Michael. "By Our Orthodoxies Shall Ye Know Us." *Joint Forces Quarterly*, no. 2 (Autumn 1993): 108-110.

Westenhoff, Charles M. "Why We Need An Air Force." *Joint Forces Quarterly*, vol. 6 (Autumn/Winter 1994-95): 63-67.

Reports, Regulations, and Official Documents

AFM 1-1. *Basic Aerospace Doctrine of the United States Air Force.* vol. 1, March 1992.

AFP 36-2241. *Promotion Fitness Examination Study Guide.* vol. 1, 1 July 1995.

Allen, Gen Lew. Air Force Chief of Staff to ALMAJCOM/SOA/CC. Letter, subject: Project Warrior, 5 February 1982.

Army Regulation 623-105. *Officer Evaluation Reporting System.* 31 March 1992.

Department of Defense. *Annual Report to the President and the Congress.* Washington D.C.: Government Printing Office, February 1995.

Department of Defense. *National Military Strategy of the United States of America 1995.* Washington, D.C.: Government Printing Office, 1995.

Department of Defense. *Report of the Task Force on Quality of Life.* (Report prepared by the Defense Science Board to the Secretary of Defense), 16 November 1995. Online. AOL. Military City Online-Text-Reference.

Department of Defense. *Selected Manpower Statistics: Fiscal Year 1994.* Washington, D.C.: Government Printing Office, 1994. [Washington Headquarters Services Directorate for Information Operations and Reports]

Field Manual 100-5. *Operations.* June 1993.

Project Warrior Professional Studies Support Booklet, Headquarters USAF. Doctrine and Concepts Division. 25 April 1983.

Widnall, Dr Sheila E. and Fogleman, Gen Ronald R. "Air Force Posture." Joint Posture Hearing Statement presented given to House National Security Committee, 22 February 1995. Contained in 1995 Air Force Issues Book.

West, The Honorable Togo D. Jr. and Sullivan, Gen Gordon R. *A Statement on the Posture of the United States Army Fiscal Year 1996.* Washington D.C.: n.p., February 1995.

Waller, Martin R. "An Analysis of Discipline Rates Among Racial/Ethnic Groups in the U.S. Military Fiscal Years 1987-1991." Defense Equal Opportunity Management Institute Director of Research (MU 43343-5; AD-A274-555; 93-18991; 1992).

Unpublished Materials

Abbott, Lt Col Candy. "Improving the Army and Air Force Officer Evaluation Systems." (Paper presented in fulfillment of Army Culture Core Elective, Air War College), November 1995.

Larry, Lt Col H. L. " Doctrine: The Bearing for Employment of Military Power." (Paper presented in fulfillment of Army Culture Core Elective, Air War College), 21 November 1995.

Lehnertz, Lt Col Michael F. "Company Commander Leadership: Does it Apply to Air Force Flight Commanders?" (Paper presented in fulfillment of Army Culture Core Elective, Air War College), November 1995.

Selvage, Col D. R. "Recruiting the Corps of the 21st Century." (Presented to Marine Corps Reserve Officers Association), 16 September 1995.

Whicker, Lt Col Carl A. "Fitness Training: A Comparison of the US Army and US Air Force Fitness Programs." (Paper presented in fulfillment of Army Culture Core Elective, Air War College), November 1995.

Winn, Lt Col Greg C. "A Comparative Analysis of the Army's and Air Force's Approach to Company Grade Professional Military Development." (Paper presented in fulfillment of Army Culture Core Elective, Air War College), 21 November 1995.

Interviews

Interviews by the author with Sgt Clark, US Army; MMI Steve Wunder, US Navy; MSgt Oliver, USMC; and SSgt Prothro, USAF at recruiting offices in Springfield, Ohio, 28 December 1995.

Scott, Lt Col Lynn. Industrial College of the Armed Forces. Telephone interview with the author. 31 January 1996.